

# TECHNICAL CATALOG



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## About Kalekim

**Among 80 countries.**  
**Always the best.**

### **Kalekim Factories**

• Istanbul • Balıkesir • Isparta • Mersin • Yozgat • Erzurum • Mardin

• Kenya

• Afghanistan • Albania • Algeria • Australia • Azerbaijan • Bahrain • Barbados • Belarus • Belgium • Benin  
• Bulgaria • Burkina Faso • Cameroon • Canada • Cayman Islands • Congo • Denmark • Djibouti • Equatorial Guinea  
• Ethiopia • France • Gabon • Gambia • Georgia • Germany • Ghana • Greece • Guinea • India • Iraq  
• Ireland • Jordan • Kazakhstan • Kenya • Kosovo • Kuwait • Kyrgyzstan • Lebanon • Liberia • Libya • Macedonia  
• Madagascar • Malta • Mauritania • Moldova • Montenegro • Morocco • Netherlands • Niger • Nigeria • Oman  
• P.R. China • Pakistan • Palestine • Panama • Qatar • Réunion • Romania • Russia • Rwanda • Saudi Arabia  
• Serbia • Sierra Leone • Slovakia • South Africa • Sweden • Switzerland • Taiwan • Tajikistan • Tanzania • Tunisia  
• Turkish Republic of Northern Cyprus • Turkmenistan • Uganda • Ukraine • United Arab Emirates • United Kingdom  
• United States of America • Uzbekistan • Yemen



## Kalekim Chemicals Co. Inc.

### **A journey of almost half a century**

Under the leadership of its founder Dr. Ibrahim Bodur, Kale Group established Kalekim A.Ş. in 1973 to manufacture tile adhesives and grouting mortars for the first time in Turkey, which now continues on its path providing all kinds of construction chemicals for the industry.

### **Continuously improved technology and R&D investments**

Thanks to the huge investments it makes in production technology and R&D, Kalekim produces top quality products conforming to international standards. In this respect, it is a major force in Turkey and in the global industry.

### **International quality and durability**

Kalekim products are produced under ISO 9001 Quality Management System, conforming to Turkish and European Standards and maintain their quality from the moment of production through application and for many years later.

### **High production capacity and product variety**

Tile adhesives, grouting mortars, waterproofing and thermal insulation materials, putties, sealants, surface preparation materials, tile cleaning and maintenance materials, flooring applications, interior and exterior paints, and decorative coatings are among the gamut of products served by Kalekim, which has the capacity to produce 900,000 tons of construction chemicals and 100,000 tons of paints and coatings annually. Kalekim has production facilities in Istanbul, Balıkesir, Isparta, Mersin, Yozgat, Erzurum, Mardin in Turkey, as well as in Kenya, Romania.



## RENOVATION & NEW CONSTRUCTION

### Solutions for Waterproofing & Ceramic Tile Application on Gypsum Boards and Plaster Surfaces



- 1 / Gypsum Board / Gypsum Surface
- 2 / Elastiser (1st Layer)
- 3 / Kalekim Waterproofing Tape (Type III)
- 4 / Elastiser (2nd Layer)
- 5 / Technoflex
- 6 / Ceramic Tile
- 7 / Ultrafuga Flex



#### Surface Preparation

Before waterproofing and ceramic tile application on gypsum boards and plaster applied surfaces, it must be ensured that gypsum boards are sound. Gypsum boards or plaster applied surfaces are the absorbent and that are exposed to flexing movement. Prior to the waterproofing application, the substrate should be primed with 4505 Kalekim Astar (Primer) to reduce its absorbency and a proper adhesion surface should be formed. Expansion joints between the panels should be filled with 8001 Kalemastik against possible cracking.

#### Waterproofing Application

A single component, acrylic based, under-tile waterproofing material 3111 Elastiser, which can be easily applied on gypsum boards or plaster surfaces, should be applied in wet areas such as bath, shower, WC. Gypsum boards or plaster surface floor wall and corner joints should be reinforced with 3501 Kalekim Waterproofing Tape (Type III). The tape must be installed carefully on the waterproofing material, the first layer of which has been applied with a brush or a roller, in a way that the center of the tape matches with the joint. The second layer must be applied after waiting for 4-6 hours between layer application depending on the ambient temperature. After the surface dries, it must be waited for 7 days for full setting and leak-tightness tests should be carried out for 24 hours.

#### Tiling and Grouting

In tiling application on waterproofing material S1 class flexible adhesive mortar 1054 Technoflex should be used at least in order to tolerate the flexing movements of the gypsum board. 2500 Ultrafuga Flex grouting mortar, which is resistant to dirt and flexible thanks to its silicone additive, should be used for the application of a long-lasting grouting mortar in continuously wet areas such as bathrooms, showers, WC.

## RENOVATION &amp; NEW CONSTRUCTION

## Solutions for Waterproofing &amp; Ceramic Tile Application on Existing Tiles - Quick Solution



- 1 / Existing Tile
- 2 / Ultratech
- 3 / İzoline 100 Waterproofing Tape /  
Kalekim Waterproofing Tape (Type III)
- 4 / İzoline 100
- 5 / Ultratech
- 6 / Ceramic Tile
- 7 / Fugaflex Rapid



## Surface Preparation

It is important to check the strength of old tiles. If there are any broken or displaced tiles, these tiles should be removed and the gap must be filled with 4002 Tamirart 30 thick repair mortar. If there are structural cracks on the surface, 4004 Tamirart S40 or 4005 Tamirart 40 should be used. The empty space can also be repaired by bonding a solid tile.

4506 Kalekim Dolgulu Astar (Smooth Surface Primer) is recommended to use to increase the bonding strength before waterproofing application.

## Waterproofing Application

Before ceramic tile application on existing tiles in wet areas such as bathroom, shower, WC etc., İzoline 100, which is a 3 layer extra elastic waterproofing membrane that is composed of modified polyethylene films laminated in between polypropylene seals with high alkali resistance, should be applied. 3501 Kalekim Waterproofing Tape (Type III) and İzoline 100 Complementary Components should be installed with 1059 Ultratech tile adhesive mortar (minimum C2 and S1 class) at critic areas such as gypsum boards or plaster surface floor wall and corners, pipe details (inner corner, outer corner, pipe and drain cuffs). Depending on the area to be applied, İzoline 100 waterproofing membrane is cut to appropriate sizes and installed on 1059 Ultratech ceramic adhesive mortar (minimum C2 and S1 class) applied with by means of a 4 mm or 6 mm notched trowel. 100% surface adhesion of İzoline 100 must be ensured by removing the excessive mortar underneath by applying force from the center to the edges by means of a trowel in a way that no air bubbles remain on the surface. When applying İzoline 100 side-by-side, two membranes must be overlapped by at least 5 cm and these parts must be fixed together with the ceramic adhesive used for bonding. After the surface dries, it must be waited for 7 days for full setting and leak-tightness tests should be carried out for 24 hours.

## Tiling and Grouting

In cases where no immediate ceramic tile application will be made on İzoline 100, the surface should be protected from direct sunlight and rain. After application of İzoline 100, ceramic application can be started without waiting. 1059 Ultratech, the quick setting tile adhesive mortar with S2 class, should be used for tile application. Regarding the grouting mortar application, 2400 Fugaflex Rapid grouting mortar, which features both water repellency and flexibility, will be a perfect system complement in the bathrooms.

## RENOVATION &amp; NEW CONSTRUCTION

## Solutions for Waterproofing &amp; Ceramic Tile Application on Underfloor Heating Systems



- 1 / Concrete Surface
- 2 / Technoflex
- 3 / Underfloor Heating System
- 4 / Slope Concrete
- 5 / Kalekim Astar (Primer)
- 6 / İzolatex Plus (1st Layer)
- 7 / Kalekim Waterproofing Tape (Type III)
- 8 / İzolatex Plus (2nd Layer)
- 9 / Technoflex
- 10 / Ceramic Tile
- 11 / Ultrafuga Flex



## Surface Preparation

It should be ensured that the application surface is free of residues that will prevent adhesion, has taken its cure and is sound. It should be ensured that the heating elements are concealed in a screed suitable for underfloor heating systems and have passed all heating tests. Deformation and cracks in the screed, which may occur due to expansion, are controlled. If there deformations or cracks are observed on the screed, these should be repaired with 4005 Tamirart 40 repair mortar. 4505 Kalekim Astar (Primer) should be applied before application of waterproofing material in order to balance porosity of the screed surface, to reduce the absorbency and to prepare a homogenous sub-surface.

## Waterproofing Application

3024 İzolatex Plus, which is a two component, flexible, under-tile waterproofing material should be applied before tile application on underfloor heating systems in wet areas such as bathroom, shower, WC etc. Existing tile floor wall and corner joints should be reinforced with Kalekim Pah Bandı (Waterproofing Tape) (Type III). The tape should be placed carefully on the waterproofing material, the first layer of which has been applied with a brush or a roller, in a way that the center of the tape matches with the joint. The second layer should be applied after waiting for 5-6 hours between layer application depending on the ambient temperature. After the surface dries, it must be waited for 7 days for full setting and leak-tightness tests should be carried out for 24 hours.

## Tiling and Grouting

High performance, flexible (S1), cement based adhesive mortar 1054 Technoflex, which is resistant to surface tensions taking place due to the temperature changes in underfloor heating systems, should be used in ceramic bonding application on waterproofing material. 2500 Ultrafuga Flex high performance grouting mortar, which is resistant to dirt and flexible thanks to its silicone additive, should be applied for the application of a long-lasting grouting mortar in continuously wet areas such as bathrooms, showers, WC.

## RENOVATION &amp; NEW CONSTRUCTION

## Solutions for Waterproofing and Thin and Large Size Tile Application on Concrete / Plastered Surfaces



- 1 / Concrete Surface / Plastered Surface
- 2 / Kalekim Astar (Primer) / B-Tone
- 3 / İzolatex Plus (1st Layer)
- 4 / Kalekim Waterproofing Tape (Type III)
- 5 / İzolatex Plus (2nd Layer)
- 6 / Ultratech
- 7 / Ceramic Tile
- 8 / Ultrafuga Flex



## Surface Preparation

First of all, it should be ensured that the reinforced concrete or plastered surface is free of residues that will prevent adhesion, clean, dry and sound. If there are defects on the application sub-surface and structural cracks on the surface, 4004 Tamirart S40 or 4005 Tamirart 40 should be used. 4505 Kalekim Astar (Primer) should be applied before application of waterproofing material for extremely absorbent surfaces. 4507 B-Tone primer should be applied for concrete surfaces.

## Waterproofing Application

3024 Izolatex Plus, which is a cement based, two component, waterproofing material should be applied for under-tile waterproofing in wet areas such as bathroom, shower, WC etc. Existing floor wall and corner joints should be reinforced with Kalekim Pah Bandı (Waterproofing Tape) (Type III). The tape should be installed carefully on the waterproofing material, the first layer of which has been applied with a brush or a roller, in a way that the center of the tape matches with the joint. The second layer should be applied after waiting for 5-6 hours between layer application depending on the ambient temperature. After the surface dries, it should be waited for 7 days for full setting and leak-tightness tests should be carried out for 24 hours.

## Tiling and Grouting

Extra flexible (S2 class), two component adhesive mortar 1059 Ultratech, which sets extremely fast, should be used in thin and large size ceramic tile bonding application on waterproofing material. 2500 Ultrafuga Flex grouting mortar, which is resistant to dirt and flexible thanks to its silicone additive, should be applied for the application of a long-lasting grouting mortar in continuously wet areas such as bathrooms, showers, WC.

## RENOVATION &amp; NEW CONSTRUCTION

## Solutions for Waterproofing &amp; Ceramic Tile Application on Existing Tiles



- 1 / Existing Tile
- 2 / Kalekim Dolgulu Astar / Smooth Surface Primer
- 3 / İzolatex Plus (1st Layer)
- 4 / Kalekim Waterproofing Tape (Type III)
- 5 / İzolatex Plus (2nd Layer)
- 6 / Technoflex
- 7 / Ceramic Tile
- 8 / Ultrafuga Flex



## Surface Preparation

It is important to check the strength of old tiles. If there are any broken or displaced tiles, these tiles should be removed and the gap must be filled with 4002 Tamirart 30 thick repair mortar. If there are structural cracks on the surface, 4004 Tamirart S40 or 4005 Tamirart 40 should be used. The empty space can also be repaired by bonding a solid tile. 4506 Kalekim Dolgulu Astar (Smooth Surface Primer) should be used to increase the bonding strength before waterproofing application.

## Waterproofing Application

3024 Izolatex Plus, which is a two component, flexible, under-tile waterproofing material must be applied before tile application on existing tiles in wet areas such as bathroom, shower, WC etc. Existing tile floor wall and corner joints should be reinforced with Kalekim Pah Bandı (Waterproofing Tape) (Type III). The tape must be installed carefully on the waterproofing material, the first layer of which has been applied with a brush or a roller, in a way that the center of the tape matches with the joint.

The second layer must be applied after waiting for 5-6 hours between layer application depending on the ambient temperature. After the surface dries, it must be waited for 7 days for full setting and leak-tightness tests should be carried out for 24 hours.

## Tiling and Grouting

In tiling application on waterproofing material S1 class flexible adhesive mortar 1054 Technoflex should be used at least in order to tolerate the flexing movements of the gypsum board. 2500 Ultrafuga Flex grouting mortar, which is resistant to dirt and flexible thanks to its silicone additive, should be used for the application of a longlasting grouting mortar in continuously wet areas such as bathrooms, showers, WC.

## RENOVATION & NEW CONSTRUCTION

### Solutions for Waterproofing & Ceramic Tile Application on Concrete / Plastered Surfaces



- 1 / Concrete Surface / Plastered Surface
- 2 / Kalekim Astar (Primer) / B-Tone
- 3 / İzolatex 1K (1st Layer)
- 4 / Kalekim Waterproofing Tape (Type III)
- 5 / İzolatex 1K (2nd Layer)
- 6 / Granitech
- 7 / Ceramic Tile
- 8 / Ultrafuga



#### Surface Preparation

It should be ensured that the reinforced concrete or plastered surface is free of residues that will prevent adhesion, clean, dry and sound. If there are defects on the application sub-surface, it should be repaired with 4002 Tamirart 30 thick repair mortar. If there are structural cracks on the surface, 4004 Tamirart S40 or 4005 Tamirart 40 should be used. 4505 Kalekim Astar (Primer) should be applied before application of waterproofing material for extremely absorbent surfaces.

#### Waterproofing Application

İzolatex 1K, which is a cement based, one component, waterproofing material should be applied for under-tile waterproofing in wet areas such as bathroom, shower, WC etc. Existing floor wall and corner joints should be reinforced with Kalekim Waterproofing Tape (Type III). The tape should be installed carefully on the waterproofing material, the first layer of which has been applied with a brush or a roller, in a way that the center of the tape matches with the joint. The second layer must be applied after waiting for 5-6 hours between layer application depending on the ambient temperature. After the surface dries, it should be waited for 7 days for full setting and leak-tightness tests should be carried out for 24 hours.

#### Tiling and Grouting

High performance granite adhesive mortar 1055 Granitech should be used in ceramic bonding application on waterproofing material. 2200 Ultrafuga high performance grouting mortar, which is resistant to dirt thanks to its silicone additive, should be applied for the application of a long-lasting grouting mortar in continuously wet areas such as bathrooms, showers, WC.

## READY TO USE IN 1 DAY!

### Rapid Solutions for Waterproofing & Ceramic Tile Application on Concrete / Plastered Surfaces



- 1 / Betonarme - Plastered Surface
- 2 / Kalekim Astar / B-Tone
- 3 / Ultralastic (1st Layer)
- 4 / Kalekim Pah Bandı (Tip III)
- 5 / Ultralastic (2nd Layer)
- 6 / Ultratech
- 7 / Ceramic Tile
- 8 / Fugaflex Rapid



#### Surface Preparation

First of all it should be ensured that the reinforced concrete or plastered surface is free of residues that will prevent adhesion, clean, dry and sound. If there are defects on the application sub-surface, it should be repaired with 4002 Tamirart 30 thick repair mortar. If there are structural cracks on the surface, 4004 Tamirart S40 should be used. 4505 Kalekim Astar (Primer) should be applied before application of waterproofing material for extremely absorbent surfaces.

#### Waterproofing Application

3025 Ultralastic, which is a cement based, two component, waterproofing material should be applied for under-tile waterproofing in wet areas such as bathroom, shower, WC etc. which are required to be opened for use in a day. Existing floor wall and corner joints should be reinforced with Kalekim Pah Bandı (Waterproofing Tape) (Type III). The tape should be installed carefully on the waterproofing material, the first layer of which has been applied with a brush or a roller, in a way that the center of the tape matches with the joint. The second layer should be applied after waiting for 2 hours between layer application depending on the ambient temperature. After the surface dries leak-tightness tests should be carried out for 24 hours.

#### Tiling and Grouting

Extra flexible (S2 class), two component adhesive mortar 1059 Ultratech, which sets extremely fast in 3 hours, should be used in ceramic bonding application on waterproofing material. 2400 Fugaflex Rapid flexible grouting mortar should be used for the application of a long-lasting grouting mortar in continuously wet areas such as bathrooms, showers, WC.

READY TO USE IN 1 DAY!

## Solutions for Waterproofing & Ceramic Tile Application on Gypsum Boards and Plaster Surfaces - Quick Solution



- 1 / Gypsum Board / Gypsum Surface
- 2 / Kalekim Astar / B-Tone
- 3 / Ultratech
- 4 / İzoline 100
- 5 / Ultratech
- 6 / İzoline 100
- 7 / Ultratech
- 8 / Ceramic Tile
- 9 / Fugaflex Rapid



### Surface Preparation

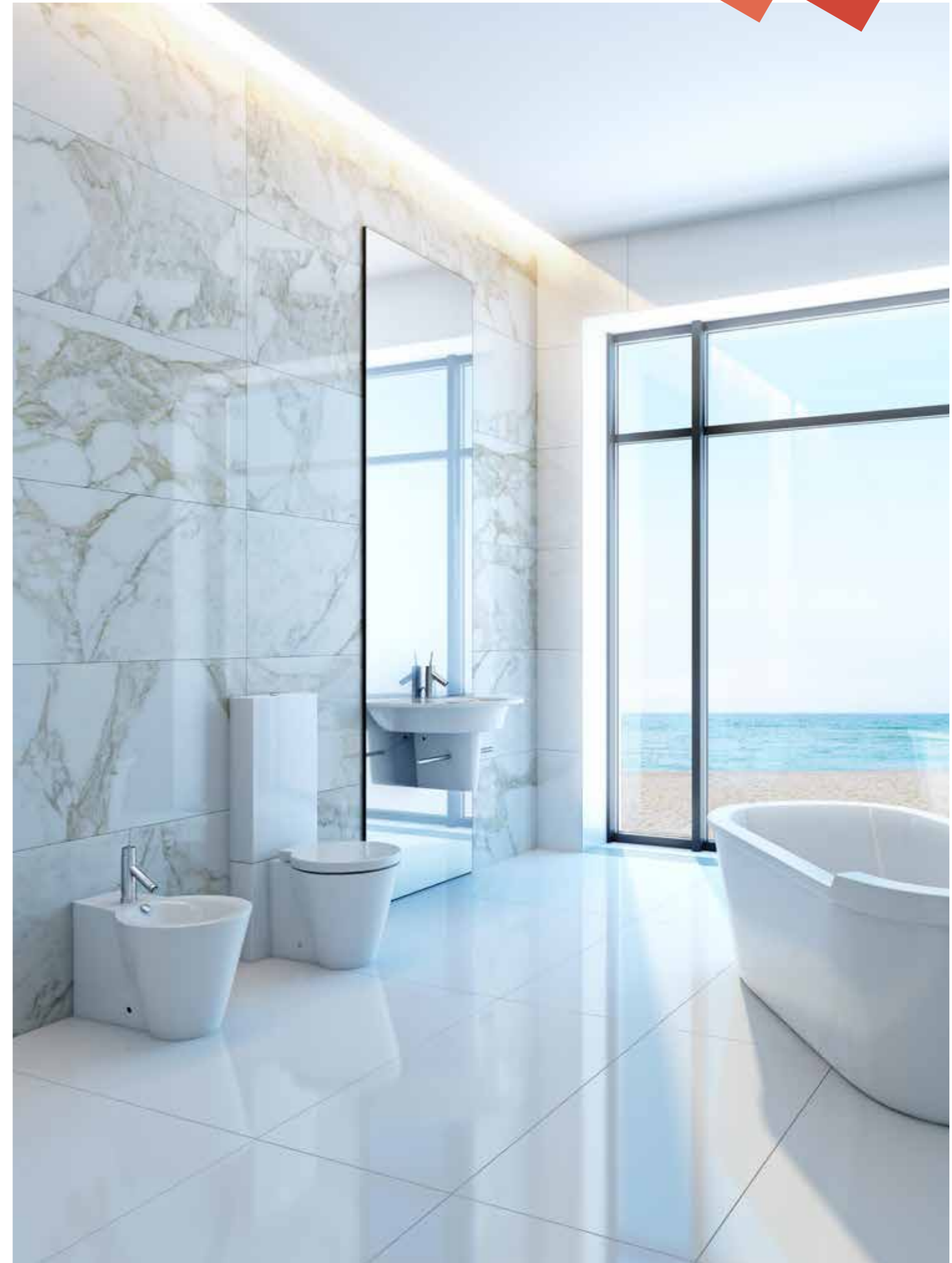
Before waterproofing and ceramic tile application on gypsum boards and plaster applied surfaces, it must be ensured that gypsum boards are sound. Gypsum boards or plaster applied surfaces are the absorbent and that are exposed to flexing movement. Prior to the waterproofing application, the substrate should be primed with 4505 Kalekim Astar (Primer) to reduce its absorbency and a proper adhesion surface should be formed. Expansion joints between the panels should be filled with 8001 Kalemastik against possible cracking.

### Waterproofing Application

Before ceramic tile application on plaster surface or gypsum board in wet areas such as bathroom, shower, WC etc., İzoline 100, which is a 3 layer extra elastic waterproofing membrane that is composed of modified polyethylene films laminated in between polypropylene seals with high alkali resistance, should be applied. 3501 Kalekim Waterproofing Tape (Type III) and İzoline 100 Complementary Components should be installed with 1059 Ultratech tile adhesive mortar (minimum C2 and S1 class) at critic areas such as gypsum boards or plaster surface floor wall and corners, pipe details (inner corner, outer corner, pipe and drain cuffs). Depending on the area to be applied, İzoline 100 waterproofing membrane is cut to appropriate sizes and installed on 1059 Ultratech ceramic adhesive mortar (minimum C2 and S1 class) applied with by means of a 4 mm or 6 mm notched trowel. 100% surface adhesion of İzoline 100 must be ensured by removing the excessive mortar underneath by applying force from the center to the edges by means of a trowel in a way that no air bubbles remain on the surface. When applying İzoline 100 side-by-side, two membranes must be overlapped by at least 5 cm and these parts must be fixed together with the ceramic adhesive used for bonding. After the surface dries, it must be waited for 7 days for full setting and leak-tightness tests should be carried out for 24 hours.

### Tiling and Grouting

In cases where no immediate ceramic tile application will be made on İzoline 100, the surface must be protected from direct sunlight and rain. After application of İzoline 100, tiling can be started without waiting. 1059 Ultratech, the quick setting tile adhesive mortar with S2 class, should be used for tile application. Regarding the grouting mortar application, 2400 Fugaflex Rapid, high performance cementitious flexible grouting mortar with high resistance to abrasion and reduced water absorption, will be a perfect system complement in the bathrooms.







## RENOVATION & NEW CONSTRUCTION

### Solutions for Tile Application on Existing Tiles



- 1 / Existing Ceramic Tile
- 2 / Kalekim Dolgulu Astar / Smooth Surface Primer
- 3 / Granitech
- 4 / Ceramic Tile
- 5 / Ultrafuga



#### Surface Preparation

First of all, the soundness of existing ceramic must be checked. If existing ceramics have lost their strength locally or are broken, repair works should be done first. If there are any broken or displaced tiles, these tiles should be removed and the gap must be filled with 4002 Tamirart 30 thick repair mortar. If there are structural cracks on the surface, 4004 Tamirart S40 should be used. You can fill the empty space by bonding an intact tile. When you are sure that tiles are solid or the floor can withstand bonding new tiles, the surface can be renovated without removing existing tiles. The surface must be cleaned and made suitable for adhesion.

Prior to application, the surface must be roughened with 4506 Kalekim Dolgulu Astar (Smooth Surface Primer) in order to increase the bonding on very bright and less absorbent surfaces such as ceramic and marble under any situations.

#### Tiling and Grouting

It is suitable to bond ceramic tiles by using the high performance 1055 Granitech adhesive. Care should be taken to select adhesive according to different types of coating materials or system requirements. Grouting should be done with 2200 Ultrafuga, which is dirt resistant due to its water repellency feature brought by its silicone content.

## RENOVATION & NEW CONSTRUCTION

### Tile Application Solutions in Underfloor Heating Systems



- 1 / Concrete Surface
- 2 / Technoflex
- 3 / Underfloor Heating System
- 4 / Surface Levelling Concrete
- 5 / Kalekim Astar (Primer)
- 6 / Technoflex
- 7 / Ceramic Tile
- 8 / Fugaflex



#### Surface Preparation

It should be ensured that the application surface is free of residues that will prevent adhesion, has taken its cure and is sound. It should be ensured that the heating elements are concealed in a screed suitable for underfloor heating systems and have passed all heating tests. Deformation and cracks in the screed, which may occur due to expansion, are controlled. If there deformations or cracks are observed on the screed, these should be repaired with 4002 Tamirart 30 thick repair mortar. 4505 Kalekim Astar (Primer) should be applied before application of waterproofing material in order to balance porosity of the screed surface, to reduce the absorbency and to prepare a homogenous sub-surface.

#### Tiling and Grouting

In underfloor heating systems, the surface is subject to more movement than normal surfaces due to sudden temperature changes. While the surface is stretched during heating, shrinkage occurs when the system cools down. Only flexible materials can tolerate these movements. Adhesive featuring with minimum of S1 class should be used in the bonding process and flexible grouting mortar should be preferred for grouting. Ceramic tiles should be bonded with Kalekim's flexible adhesive mortar 1054 Technoflex and 2600 Fugaflex flexible grouting mortar should be used for grouting. A properly performed tile application not only contribute to long service life of these systems, but also ensure that they are more efficient.

## RENOVATION & NEW CONSTRUCTION

### Solutions for Thin and Large Size Ceramic Tile Application on Concrete / Plastered Surfaces



- 1 / Concrete Surface
- 2 / Kalekim Astar / B-Tone
- 3 / Master 10
- 4 / Technolight
- 5 / Ceramic Tile
- 6 / Ultrafuga Flex
- 7 / Kalepolymas



#### Surface Preparation

It should be ensured that the reinforced concrete or plastered surface are totally cured, free of residues that will prevent adhesion and sound. If there are defects on the application surface, it should be repaired with 4001 Tamirart 5 or 4002 Tamirart 30 repair mortars. If there are structural cracks on the surface, 4004 Tamirart S40 should be used. Rough surfaces should be levelled with 4201 Master 10 self-levelling screed. Extremely absorbent surfaces should be moistened or 4505 Kalekim Astar (Primer) should be applied before application.

#### Tiling and Grouting

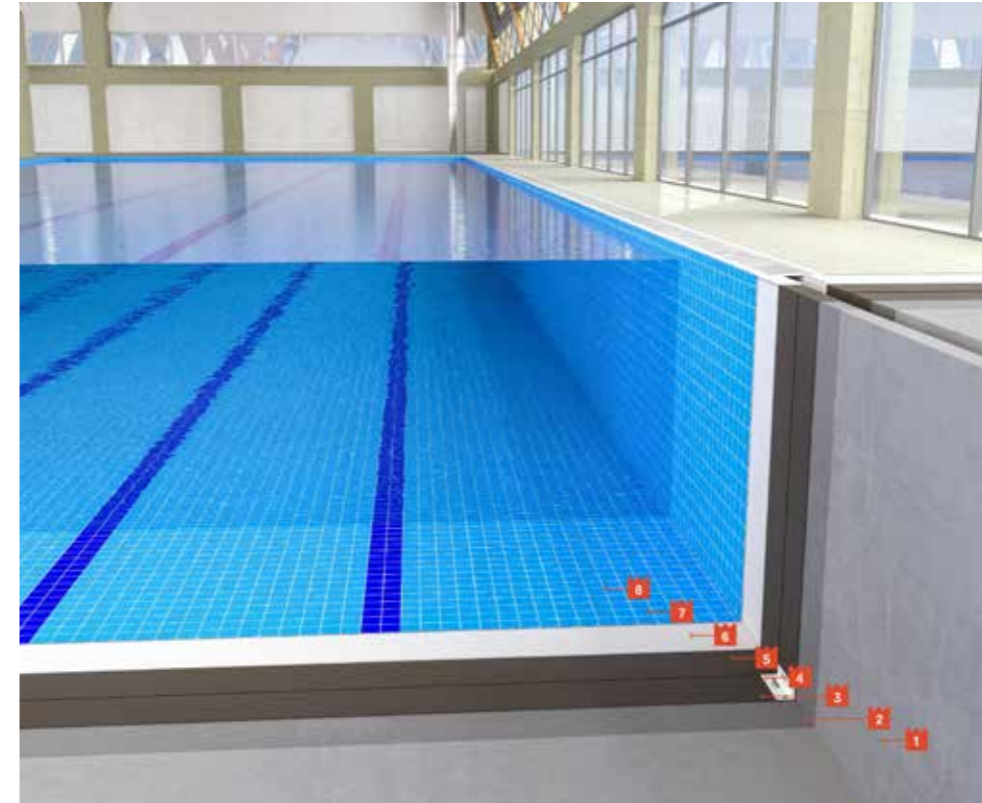
When bonding thin and large-sized ceramics, the combined method (both the application of the adhesive to the back and on the surface of the coating material) should be applied and the expansion joints should be left in large areas while avoiding the application of very little joint gaps in order to get a long-lasting application. Two-component, high-performance, highly flexible 1069 Technolight adhesive mortar should be used for the bonding thin and large size ceramic tiles (3mm-5mm). 1069 Technolight allowing to proceed with grouting by setting extra fast in 3 hours, is a cement based adhesive that provides the solution for bonding of the coating materials featuring fiber glass bearing nets at the back. In grouting applications, flexible material should be used just like in adhesives. 2500 Ultrafuga Flex is not only dirt resistant thanks to its water repellency brought by its silicone content, but also contributes to a long term use thanks to its flexibility.

In expansion joints, polyurethane based sealant 8021 Kalepolymas grouting offers ideal application and usage. In this way, the whole system will achieve full compliance with all kinds of ground movements.



## POOL

### Solutions for Waterproofing & Ceramic Tile Application in Swimming Pools



- 1 / Reinforced Concrete or Plastered Surface
- 2 / Kalekim Astar / B-Tone
- 3 / İzolatex Plus (1st Layer)
- 4 / Kalekim Waterproofing Tape (Type III)
- 5 / İzolatex Plus (2nd Layer)
- 6 / Technopool
- 7 / Ceramic Tile
- 8 / Fugapool



#### Surface Preparation

It should be ensured that the reinforced concrete or plastered surface is free of residues that will prevent adhesion, clean, dry and sound. If there are defects on the application sub-surface, it should be repaired with 4002 Tamirart 30 thick repair mortar. If there are structural cracks on the surface, sulfate and chlorine resistant 4004 Tamirart S40 should be used. 4505 Kalekim Astar (Primer) should be applied before application of waterproofing material for extremely absorbent surfaces.

#### Waterproofing Application

3024 İzolatex Plus, which is a cement based, two component, waterproofing material should be applied for under-tile waterproofing in swimming pools. Existing floor wall and corner joints should be reinforced with Kalekim Pah Bandı (Waterproofing Tape) (Type III). The tape should be installed carefully on the waterproofing material, the first layer of which has been applied with a brush or a roller, in a way that the center of the tape matches with the joint. The second layer should be applied after waiting for 5-6 hours between layer application depending on the ambient temperature. After the surface dries, it should be waited for 7 days for full setting and leak-tightness tests should be carried out for 24 hours.

#### Tiling and Grouting

1062 Technopool S2 class flexible tile adhesive mortar, which is especially developed for pools and contributes to water impermeability thanks to its high polymer content, should be used for tile bonding application on flexible waterproofing material. Regarding the grouting mortar application, 2900 Fugapool grouting mortar, which is also especially developed for pools and features high performance and flexibility, will be a perfect system complement in pools.

## POOL

### Solutions for Waterproofing & Tile Application on Pool - Quick Solution



- 1 / Reinforced Concrete or Plastered Surface
- 2 / Technopool
- 3 / İzoline 100
- 4 / İzoline 100 Waterproofing Tape
- 5 / İzolatex Plus
- 6 / Technopool
- 7 / Ceramic Tile
- 8 / Fugaprotech



#### Surface Preparation

It is important to check the strength of old tiles in the pool. If there are any broken or displaced tiles, these tiles should be removed and the gap must be filled with 4002 Tamirart 30 thick repair mortar. If there are structural cracks on the surface, sulfate and chlorine resistant 4004 Tamirart S40 should be used. The empty space can also be repaired by bonding a solid tile.

4506 Kalekim Dolgulu Astar (Smooth Surface Primer) should be used to increase the bonding strength before waterproofing application.

#### Waterproofing Application

Before ceramic tile application on existing tiles in swimming pools, Izoline 100, which is a 3 layer extra elastic waterproofing membrane that is composed of modified polyethylene films laminated in between polypropylene seals with high alkali resistance, is applied to get the quickest solution during the high season. Kalekim Waterproofing Tape (Type III) and Izoline 100 Complementary Components should be installed with 1062 Technopool tile adhesive mortar (minimum C2 and S1 class) at critic areas such as existing tile floor wall and corners, pipe details (inner corner, outer corner, pipe and drain cuffs).

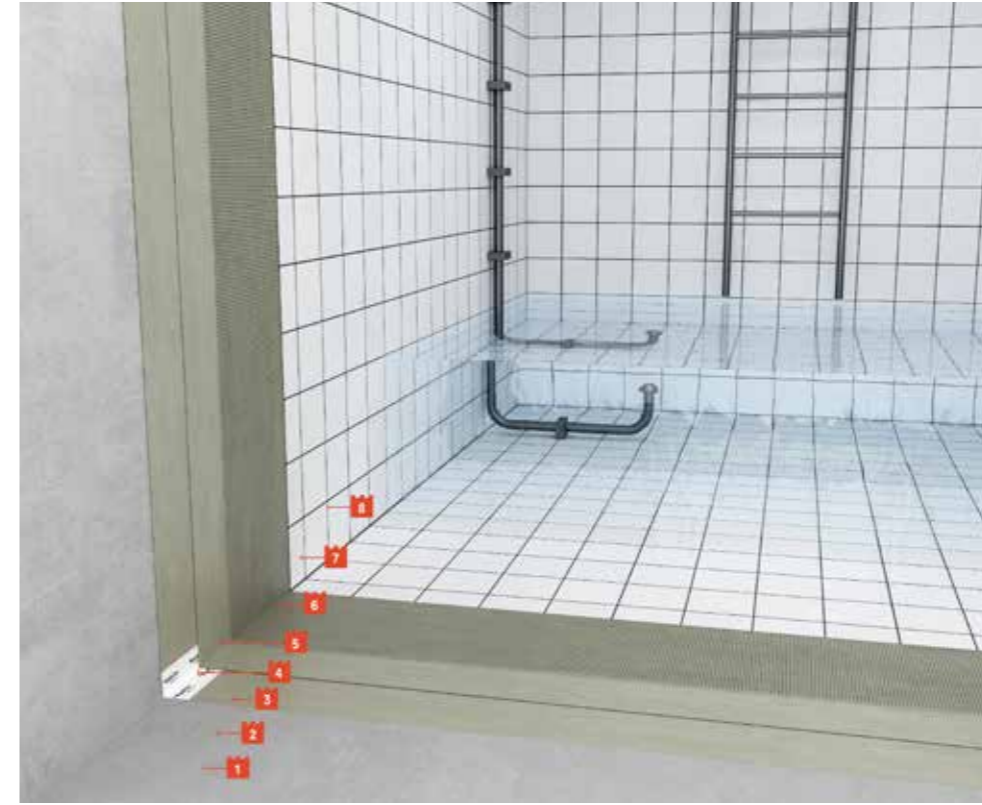
Depending on the area to be applied, Izoline 100 waterproofing membrane is cut to appropriate sizes and installed on 1062 Technopool ceramic adhesive mortar applied with by means of a 4 mm or 6 mm notched trowel. 100% surface adhesion of Izoline 100 must be ensured by removing the excessive mortar underneath by applying force from the center to the edges by means of a trowel in a way that no air bubbles remain on the surface. Membranes should be joined end to end in areas exposed to continuous and high water pressure, such as pools. Joints of membranes added to end-to-end should be insulated by applying a flexible waterproofing material such as 3024 İzolatex Plus and Kalekim Pah Bandı (Waterproofing Tape) - Type III.

#### Tiling and Grouting

In cases where no immediate ceramic tile application will be made on Izoline 100, the surface should be protected from direct sunlight and rain. Upon completion of Izoline 100 application, ceramic application can be started without waiting. Extra flexible (S2), adhesive mortar 1062 Technopool should be used in ceramic bonding application. Regarding the grouting mortar application, 2940 Fugaprotech grouting mortar, which is features both water repellency and flexibility, will be a perfect system complement in pools.

## WATER TANK

### Solutions for Waterproofing & Tile Application in Water Tanks



- 1 / Betonarme / Plastered Surface
- 2 / Kalekim Astar / B-Tone
- 3 / İzolatex Plus (1nd Layer)
- 4 / Kalekim Pah Bandı (Type III)
- 5 / İzolatex Plus (2nd Layer)
- 6 / Technoflex
- 7 / Ceramic Tile
- 8 / Fugaflex



#### Surface Preparation

It should be ensured that the reinforced concrete or plastered surface is free of residues that will prevent adhesion, clean, dry and sound. If there are defects on the application sub-surface, it should be repaired with 4002 Tamirart 30 thick repair mortar. If there are structural cracks on the surface, 4004 Tamirart S40 should be used. 4505 Kalekim Astar (Primer) should be applied before application of waterproofing material for extremely absorbent surfaces.

#### Waterproofing Application

3024 İzolatex Plus, which is a cement based, two component, waterproofing material and has certificate of compliance for use in drinking water reservoirs, must be applied for under-tile waterproofing in water reservoirs. Existing floor wall and corner joints should be reinforced with Kalekim Pah Bandı (Waterproofing Tape) (Type III). The tape should be installed carefully on the waterproofing material, the first layer of which has been applied with a brush or a roller, in a way that the center of the tape matches with the joint. The second layer should be applied after waiting for 5-6 hours between layer application depending on the ambient temperature. After the surface dries, it should be waited for 7 days for full setting and leak-tightness tests should be carried out for 24 hours.

#### Tiling and Grouting

In the ceramic tile bonding application on waterproofing material S1 class flexible, high performance adhesive mortar 1054 Technoflex should be used. For grouting, 2300 Fugaflex, which is a high performance, flexible grouting mortar with certificate of compliance for use in drinking water reservoirs, should be applied since there will be contact with water.



## TRAFFICABLE TERRACE

### Waterproofing and Coating Solutions for UV Resistant Terrace Roofs



- 1 / Slope Concrete
- 2 / İzopur P
- 3 / İzopur (1st Layer)
- 4 / İzopur (2nd Layer)
- 5 / İzopur C



#### Surface Preparation

The reinforced concrete application surface must be checked before waterproofing. The surface is free of residues that will prevent adhesion, clean, smooth and sound. The roof terrace slope should be designed as min 2%. Waterproofing system with protection and supporting layers (if any); should be able to withstand the effects of roof slope. The points (sieves and pipes) where the water onto the roof terrace to be discharged should be determined according to the roof area and annual rainfall quantity of the area where the application is made.

Reinforced concrete surface should be properly levelled for homogeneous application of the waterproofing product. If there are defects on the application sub-surface, it should be repaired with 4002 Tamirart 30 thick repair mortar. If there are structural cracks on the surface, 4004 Tamirart S40 should be used. Waterproofing must be ensured by using 4004 Tamirart S40 repair mortar on inner corners for sustaining the sealing. Before application, the surface should not be washed with water and the surface moisture should be below 5%. 3452 Izopur P should be applied after surface preparation.

#### Waterproofing Application

The most important feature of Izopur System components, that distinguishes them from other waterproofing products, is the high elasticity. Thanks to its easy and fast application it creates a water impermeable waterproofing layer at any place in need of waterproofing such as terraces, balconies, roof and terraces of the carparks. It provides long-lasting and reliable waterproofing with different compositions offered in the system for any areas with light vehicle traffic such as pedestrian crossings, pedestrian areas and with heavy vehicle traffic such as stadium, sports fields, industrial areas etc., with no needs to cover such areas.

Before application on flat roof terraces, 2 layers of 3451 Izopur one component, ready to use, extra elastic, polyurethane based waterproofing material should be applied by means of a brush, roller or by spraying on the reinforced concrete prepared surface primed with 3452 Izopur P. Risky areas such as large planes, floor-wall joints, parapet corners, chimney bottoms should be strengthened with a special waterproofing textile mesh. The second layer should be applied 12 hours after the application of the first coat (within 36 hours at the latest). After the surface dries, it should be waited for 7 days for full setting and leak-tightness tests should be carried out for 24 hours.

#### Finishing Coat Application

When surface finishing resistant to UV rays and light pedestrian traffic is desired, 2 layers of 3453 Izopur C, elastic, yellowing-free, easy to clean, finishing material must be applied on 3451 Izopur waterproofing material. The waiting period between two layer applications must be 3-4 hours.

## TRAFFICABLE TERRACE

## Waterproofing &amp; Ceramic Tile Application on Concrete / Plastered Surfaces



- 1 / Slope Concrete
- 2 / Kalekim Astar
- 3 / İzolatex 1K (1st Layer)
- 4 / Kalekim Pah Bandı (Tip III)
- 5 / İzolatex 1K (2st Layer)
- 6 / Technoflex
- 7 / Ceramic Tile
- 8 / Ultrafuga Flex



## Surface Preparation

The reinforced concrete application surface must be checked before waterproofing. The surface is free of residues that will prevent adhesion, clean, smooth and sound. The roof terrace slope should be designed as min 2%. Waterproofing system with protection and supporting layers (if any); should be able to withstand the effects of roof slope. The points (sieves and pipes) where the water onto the roof terrace to be discharged should be determined according to the roof area and annual rainfall quantity of the area where the application is made. Reinforced concrete surface should be properly levelled for homogeneous application of the waterproofing product. If there are defects on the application sub-surface, it should be repaired with 4002 Tamirart 30 thick repair mortar. If there are structural cracks on the surface, 4004 Tamirart S40 should be used. Waterproofing should be ensured by using 4004 Tamirart S40 repair mortar on inner corners for sustaining the sealing. 4505 Kalekim Astar (Primer) should be applied after surface preparation.

## Waterproofing Application

3022 Izolatex 1K, which is a cement based, two component, waterproofing material must be applied for under-tile waterproofing in primer applied reinforced concrete surfaces where pre-application preparations have completed for balconies and terraces. Existing floor wall and corner joints should be reinforced with Kalekim Pah Bandı (Waterproofing Tape) (Type III). The tape should be installed carefully on the waterproofing material, the first layer of which has been applied with a brush or a roller, in a way that the center of the tape matches with the joint. The second layer should be applied after waiting for 5-6 hours between layer application depending on the ambient temperature. After the surface dries, it should be waited for 7 days for full setting and leak-tightness tests should be carried out for 24 hours.

## Tiling and Grouting

In the outdoor ceramic tile bonding application on waterproofing material S1 class flexible, high performance adhesive mortar 1054 Technoflex should be used. 2500 Ultrafuga Flex grouting mortar should be used for the application of a long-lasting grouting mortar in areas such as balconies and terraces.

## NON - TRAFFICABLE TERRACE

## Waterproofing Solutions for UV Resistant Terrace Flat Roofs



- 1 / Slope Concrete
- 2 / İzolatex UV / Elastikor (1st layer)
- 3 / İzolatex UV (1st Layer)
- 4 / Kalekim Pah Bandı (Type III)
- 5 / İzolatex UV / Elastikor (2 layers)



## Surface Preparation

The reinforced concrete application surface should be checked before waterproofing. The surface is free of residues that will prevent adhesion, clean, smooth and sound. The roof terrace slope should be designed as min 2%. Waterproofing system with protection and supporting layers (if any); should be able to withstand the effects of roof slope. The points (sieves and pipes) where the water onto the roof terrace to be discharged should be determined according to the roof area and annual rainfall quantity of the area where the application is made. Reinforced concrete surface should be properly levelled for homogeneous application of the waterproofing product. If there are defects on the application sub-surface, it should be repaired with 4002 Tamirart 30 thick repair mortar. If there are structural cracks on the surface, 4004 Tamirart S40 should be used. Waterproofing should be ensured by using 4004 Tamirart S40 repair mortar on inner corners for sustaining the sealing. 4505 Kalekim Astar (Primer) should be applied after surface preparation.

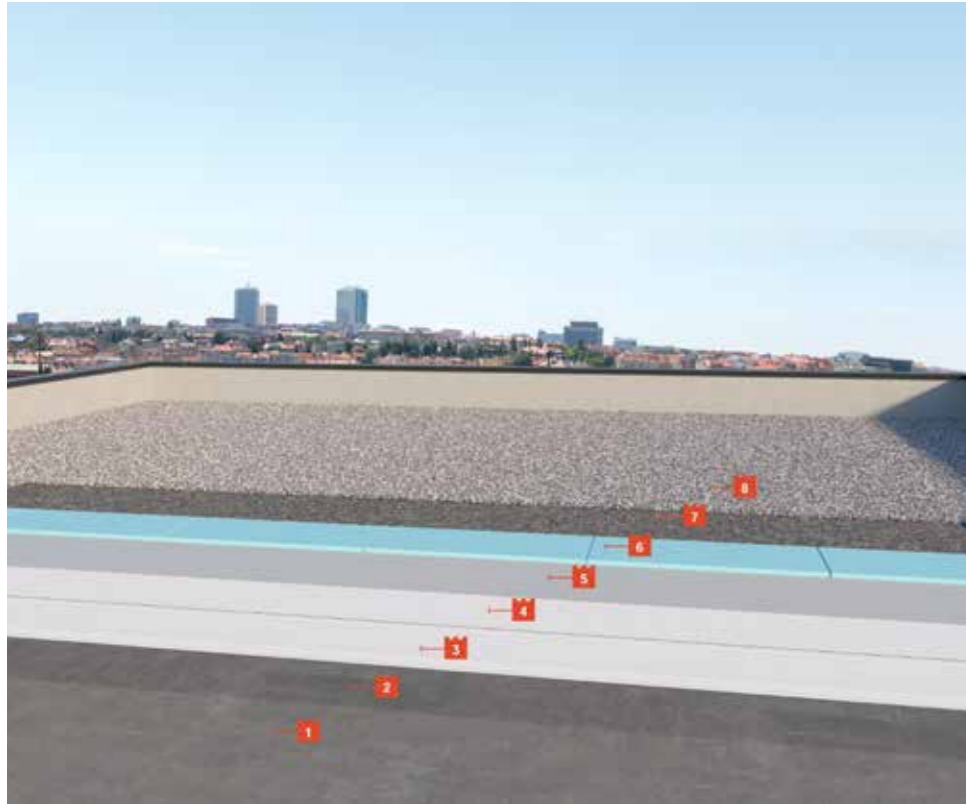
## Waterproofing Application

3027 Izolatex UV, which is a white coloured, cement based, UV ray resistant, two component, waterproofing material or 3131 Elastikor should be applied in primed, reinforced concrete surfaces where pre-application preparations have completed for balconies and terraces. Existing floor wall and corner joints should be reinforced with Kalekim Waterproofing Tape (Type III). The tape should be installed carefully on the waterproofing material, the first layer of which has been applied with a brush or a roller, in a way that the center of the tape matches with the joint.

The second layer should be applied after waiting for 5-6 hours between layer application depending on the ambient temperature. After the surface dries, it should be waited for 7 days for full setting and leak-tightness tests should be carried out for 24 hours. A long-lasting and secure waterproofing resistant to sunlight is ensured without any coverup by using 3027 Izolatex UV or 3131 Elastikor applied as 2 layers on the terraces.

## NON -TRAFFICABLE TERRACE

### Waterproofing Solutions for Non-Exposed Covered with Ballast Terrace Flat Roofs



- 1 / Slope Concrete
- 2 / İzopur P
- 3 / İzopur (1st Layer)
- 4 / İzopur (2nd Layer)
- 5 / Vapor Barrier Coat
- 6 / XPS
- 7 / Geotextile Felt
- 8 / Gravel



#### Surface Preparation

The reinforced concrete application surface must be checked before waterproofing. The surface is free of residues that will prevent adhesion, clean, smooth and sound.

The roof terrace slope should be designed as min 2%. Waterproofing system with protection and supporting layers (if any); should be able to withstand the effects of roof slope. The points (sieves and pipes) where the water onto the roof terrace to be discharged should be determined according to the roof area and annual rainfall quantity of the area where the application is made. Reinforced concrete surface should be properly levelled for homogeneous application of the waterproofing product. If there are defects on the application sub-surface, it should be corrected with 4002 Tamirart 30 thick repair mortar. If there are structural cracks on the surface, 4004 Tamirart S40 should be used. Waterproofing should be ensured by using 4004 Tamirart S40 repair mortar on inner corners for sustaining the sealing. Before application, the surface should not be washed with water and the surface moisture should be below 5%. 3452 Izopur P should be applied after surface preparation.

#### Waterproofing Application

The most important feature of Izopur System components, that distinguishes them from other waterproofing products, is the high elasticity. Thanks to its easy and fast application it creates a water impermeable waterproofing layer at any place in need of waterproofing such as terraces, balconies, roof and terraces of the carparks. Before application on flat roof terraces, 2 layers of 3451 Izopur one component, ready to use, extra elastic, polyurethane based waterproofing material should be applied by means of a brush, roller or by spraying on the reinforced concrete prepared surface primed with 3452 Izopur P. Risky areas such as large planes, floor-wall joints, parapet corners, chimney bottoms should be strengthened with a special waterproofing textile mesh. The second layer should be applied 12 hours after the application of the first coat (within 36 hours at the latest). After the surface dries, it must be waited for 7 days for full setting and leak-tightness tests should be carried out for 24 hours.

#### Waterproofing Protection

Izopur System waterproofing components applied on the pebble covered terrace insulation should be protected from external factors. Thermal insulation should be done according to the details calculated according to the details in the specification. Thermal insulation is covered with mesh and ballet and the water insulation system is protected.

## COOL ROOF

### Elastomeric Reflective Cold Roofing Solutions



- 1 / Aluminium and Metal Roofing
- 2 / Elasticool (Applied in 3 layers)



#### Surface Preparation

The application subsurface should be checked before waterproofing. The surface is free of residues that will prevent adhesion, clean, smooth and sound. If there are defects and cracks on the application surface (if it is concrete), Tamirart series repair products should be used for repairing. Joints or horizontal vertical joints on subsurface should be sealed with flexible Kalepolymas.

#### Waterproofing Application

3151 Elasticool, which is a waterproofing and coating material featuring high solar reflectivity, protects the building from excessive heat by reducing the surface temperature of roofs and terraces and reduces the temperature inside the building. It saves energy by reducing the need for electric energy used for cooling. 3151 Elasticool, which is a ready to use liquid coating material particularly preferred for cold roof applications thanks to its special polymerization formula, should be applied as minimum 2 layers by means of a brush or roller. The total thickness of the application should be 1.5-2.0 mm. The second layer should be applied after the first layer completely dries. The waiting period between the layer applications should be between 4-8 hours depending on the air temperature and relative humidity.

## RENOVATION &amp; NEW CONSTRUCTION

## Transparent Waterproofing Solutions for Application on Existing Tiles



- 1 / Existing Ceramic Tile
- 2 / İzopur Trans P
- 3 / İzopur Trans



## Surface Preparation

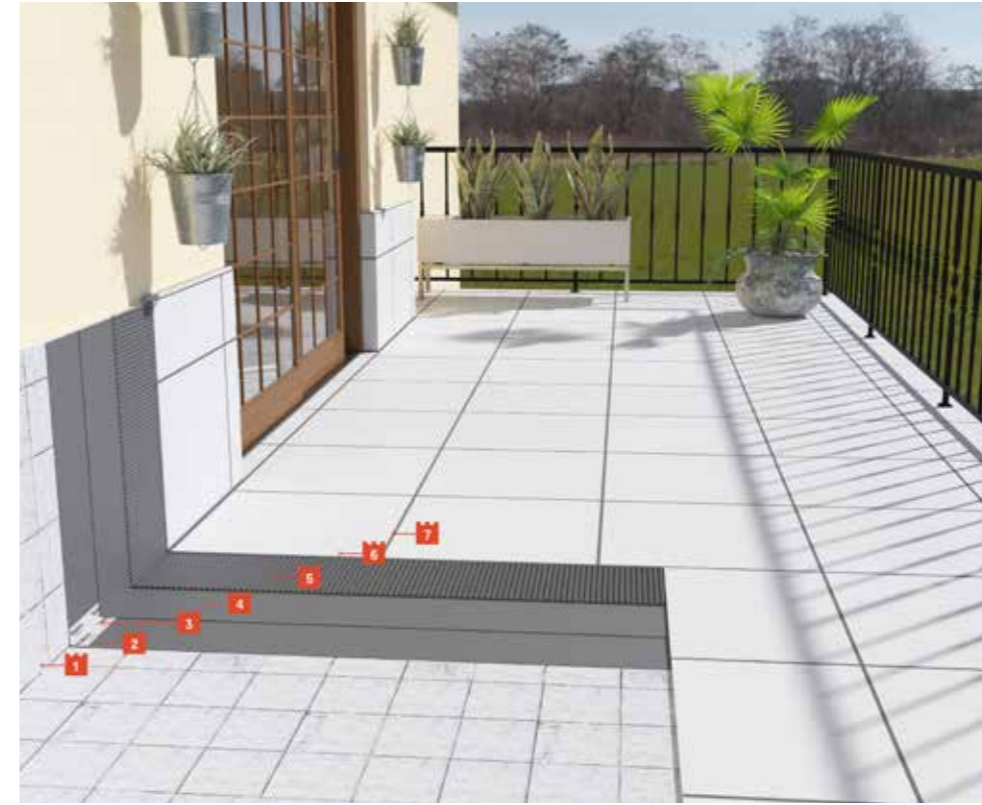
Izopur Trans System application, which allows waterproofing on the existing ceramic tiles in balconies and terraces, should be started with 3455 Izopur Trans P, which is a ceramic surface primer. The existing ceramic surface to be treated must be clean, dry, sound and free from residues that will prevent adhesion such as dust, dirt, oil and etc. and surface moisture should be below 5%. One component, ready to use, easy and fast to apply 3455 Izopur Trans P, increases the retention strength of 3454 Izopur Trans waterproofing material to be applied on it in bright and non-absorbent surfaces. 3455 Izopur Trans P should be applied to the entire surface by means of a clean and dry cloth.

## Waterproofing Application

3454 Izopur Trans is a polyurethane based waterproofing material that provides waterproofing without the need for laborious renovation like dismantling and crushing, by applying on surfaces such as ceramics, tiles and glass on balconies and terraces thanks to its special formula. 3454 Izopur Trans should be applied as minimum two layers by means of a brush or roller until it covers the entire surface and the joints. The second layer should be applied 12 hours after the application of the first coat (within 36 hours at the latest). It is recommended to apply 3454 Izopur Trans also as the third layer for better waterproofing and higher resistance to weather conditions.

## RENOVATION &amp; NEW CONSTRUCTION

## Solutions for Waterproofing &amp; Tile Application on Existing Tiles



- 1 / Existing Ceramic Tile
- 2 / Ultralastic (1st Layer)
- 3 / Kalekim Waterproofing Tape
- 4 / Ultralastic (2nd Layer)
- 5 / Technoflex
- 6 / Ceramic Tile
- 7 / Ultrafuga Flex



## Surface Preparation

It is important to check the strength of existing tiles. If there are any broken or displaced tiles, these tiles should be removed and the gap must be filled with 4002 Tamirart 30 thick repair mortar. If there are structural cracks on the surface, 4004 Tamirart S40 should be used. The empty space can also be repaired by bonding a solid tile.

It must be ensured that the surface existing tile is free of residues that will prevent adhesion, clean, smooth and sound.

## Waterproofing Application

3025 Ultralastic, which is a two component, flexible, under-tile waterproofing material should be applied before tile application on existing tiles in balconies and terraces. Existing tile floor wall and corner joints should be reinforced with Kalekim Pah Bandı (Waterproofing Tape) (Type III). The tape should be installed carefully on the waterproofing material, the first layer of which has been applied with a brush or a roller, in a way that the center of the tape matches with the joint. The second layer should be applied after waiting for 5-6 hours between layer application depending on the ambient temperature. After the surface dries, it should be waited for 7 days for full setting and leak-tightness tests should be carried out for 24 hours.

## Tiling and Grouting

In ceramic bonding application on waterproofing material, ceramic application should be made with S1 class flexible, cement based 1054 Technoflex ceramic adhesive mortar on large balconies and terraces. In the application of grouting, high performance 2500 Ultrafuga Flex with silicone additives should be used in places where there is heavy pedestrian and high traffic in outdoor areas such as balcony and terrace.



## RENOVATION &amp; NEW CONSTRUCTION

## Solutions for Waterproofing &amp; Thin and Large Size Ceramic Tile Application on Concrete / Plastered Surfaces



- 1 / Slope Concrete
- 2 / Kalekim Astar (Primer)
- 3 / İzolatex Plus (1st Layer)
- 4 / Kalekim Waterproofing Tape (Type III)
- 5 / İzolatex Plus (2nd Layer)
- 6 / Ultratech
- 7 / Ceramic Tile
- 8 / Ultrafuga Flex



## Surface Preparation

The reinforced concrete application surface should be checked before waterproofing. The surface is free of residues that will prevent adhesion, clean, smooth and sound. The roof terrace slope should be designed as min 2%.

Waterproofing system with protection and supporting layers (if any); should be able to withstand the effects of roof slope. The points (sieves and pipes) where the water onto the roof terrace to be discharged should be determined according to the roof area and annual rainfall quantity of the area where the application is made. Reinforced concrete surface should be properly levelled for homogeneous application of the waterproofing product. If there are defects on the application sub-surface, it should be repaired with 4002 Tamirart 30 thick repair mortar. If there are structural cracks on the surface, 4004 Tamirart S40 should be used. Waterproofing should be ensured by using 4004 Tamirart S40 repair mortar on inner corners for sustaining the sealing. 4505 Kalekim Astar (Primer) should be applied after surface preparation.

## Waterproofing Application

3024 İzolatex Plus, which is a cement based, two component, waterproofing material should be applied for under-tile waterproofing in primer applied reinforced concrete surfaces where pre-application preparations have completed for balconies and terraces. Existing floor wall and corner joints should be reinforced with Kalekim Pah Bandı (Waterproofing Tape) (Type III). The tape should be installed carefully on the waterproofing material, the first layer of which has been applied with a brush or a roller, in a way that the center of the tape matches with the joint. The second layer should be applied after waiting for 5-6 hours between layer application depending on the ambient temperature. After the surface dries, it should be waited for 7 days for full setting and leak-tightness tests should be carried out for 24 hours.

## Tiling and Grouting

Extra flexible (S2), two component adhesive mortar 1059 Ultratech, which sets extremely fast in 3 hours, should be used in thin and large size ceramic tile bonding application on flexible waterproofing material. 2500 Ultrafuga Flex grouting mortar, which is resistant to dirt and also flexible thanks to its silicone additive, should be applied for the application of a long-lasting grouting mortar in spaces such as balconies and terraces.





## FOUNDATION WALL INSULATION

### External Waterproofing Solutions for Foundation Walls



- 1 / Concrete Shear Wall
- 2 / Tamirart S40
- 3 / İzoline Astar (Primer)
- 4 / İzoblok 2K+ (1st Layer)
- 5 / Waterproofing Net
- 6 / İzoblok 2K+ (2nd Layer)
- 7 / XPS
- 8 / Drainage Board



#### Surface Preparation

The application surface should be checked before waterproofing. The surface should be clean, smooth, solid and primed with 4701 İzoline Astar (Bitumen Primer). Before applying the rod holes used for administering the iron rod used for fixing the forms during reinforced concrete fabrication, iron rods and/or plastic parts should be removed from their places and if this is not possible, they should be cut minimum 2 cm below the concrete surface and the top part should be filled with 4004 Tamirart S40 structural repair mortar. On the surfaces subjected to segregation (concrete-aggregate decomposition), the decomposed area should be free of loose particles by applying mechanical methods, the gaps and pores on the surface should be filled with 4002 Tamirart 30 repair mortar and repaired before the waterproofing layer application.

#### Waterproofing

Two-component, polymer modified bitumen rubber based, solvent-free 3401 İzoblok 2K+ should be applied as the waterproofing layer in foundation shear walls in accordance with the instructions stated in the product specifications.

#### Waterproofing Protection

Earth filling should not be performed before the polymer modified bitumen based waterproofing materials completely dry. Waterproofing layer should be protected against the thermal insulation boards, drainage boards etc. and sharp objects inside the soil and mechanical effects during the filling process, before earth filling.

## FOUNDATION WALL INSULATION

## Internal Waterproofing Solutions for Foundation Walls



- 1 / Concrete Shear Wall
- 2 / İzoseal 2K (1st Layer)
- 3 / İzoseal 2K (2nd Layer)
- 4 / Gypsastar
- 5 / Kalekim İnce Siva / Finish Plaster (White)



## Surface Preparation

Wet or damp basement floors cannot be used as comfortable living spaces and they reduce the life and value of the building. The best solution is to perform external waterproofing of the parts of the buildings that will remain under the ground during the construction phase of the building. In cases where external insulation is not made, it is possible to tolerate this situation and to insulate from inside to provide the necessary waterproofing. The application surface should be checked before waterproofing. The surface should be clean, smooth and sound. It is necessary to clean loose particles, residues that will prevent adhesion and penetration of the product into the concrete, such as dust, dirt, oil, soil, on the concrete surface where crystalized waterproofing materials give high performance, thoroughly by using water jet, sand blasting or wire brush. Defective applications such as cracks, capillary cracks and segregation on the concrete surface should be opened by breaking and cleaned and 3031 İzoseal 2K should be applied to the cleaned areas, followed by the rectification phase by using 4002 Tamirart 30 thick repair mortar or 4004 Tamirart S40 structural repair mortar.

The surface must be saturated with water before proceeding with waterproofing application. It should be noted that the surface is not wet but humid during the application.

The application solutions above are for informational purposes only. The suitability of the system components for the application detail and to the purpose should be tested beforehand by the consumer / user. Applications that made other than the application recommendations specified in the product technical sheet are under the responsibility of the consumer / user.

## Waterproofing

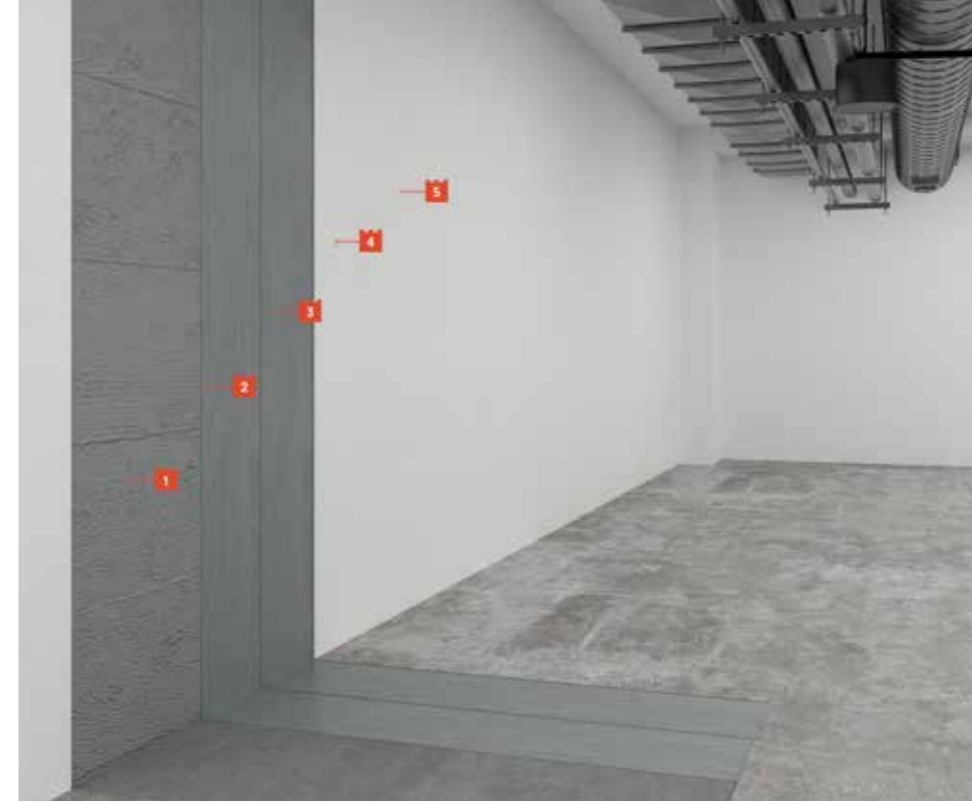
3031 İzoseal 2K two component crystallized waterproofing and protection mortar should be applied on the concrete surface with brush or roller as 2 or 3 layers. 3031 İzoseal 2K, when applied to concrete surface, penetrates through the cavities into the concrete and active chemicals in its formula react with free lime and moisture in the capillary cavities of concrete and form insoluble crystal structures. These crystals fill the cavities and shrinkage cracks in the concrete to prevent the passage of water and make the concrete resistant to water pressure from inside and outside.

## Finishing Application

Entire surface should be coated with 4041 Kalekim İnce Siva (Finish Plaster) in order to level the surface and make it ready for the next application following the waterproofing application in order to convert the basement floors into lively, joyful, colourful, healthy and comfortable living areas. It is recommended to use Gypsastar as primer before plastering.

## FOUNDATION WALL INSULATION

## Internal Waterproofing Solutions for Foundation Walls



- 1 / Concrete Shear Wall
- 2 / İzoseal 2K+ (1st Layer)
- 3 / İzoseal 2K+ (2nd Layer)
- 4 / Gypsastar
- 5 / Kalekim İnce Siva / Finish Plaster (White)



## Surface Preparation

Wet or damp basement floors cannot be used as comfortable living spaces and they reduce the life and value of the building. The best solution is to perform external waterproofing of the parts of the buildings that will remain under the ground during the construction phase of the building. In cases where external insulation is not made, it is possible to tolerate this situation and to insulate from inside to provide the necessary waterproofing. The application surface should be checked before waterproofing. The surface should be clean, smooth and sound. It is necessary to clean loose particles, residues that will prevent adhesion and penetration of the product into the concrete, such as dust, dirt, oil, soil, on the concrete surface where crystalized waterproofing materials give high performance, thoroughly by using water jet, sand blasting or wire brush. Defective applications such as cracks, capillary cracks and segregation on the concrete surface should be opened by breaking and cleaned and 3031 İzoseal 2K should be applied to the cleaned areas, followed by the rectification phase by using 4002 Tamirart 30 thick repair mortar or 4004 Tamirart S40 structural repair mortar.

The surface must be saturated with water before proceeding with waterproofing application. It should be noted that the surface is not wet but humid during the application.

The application solutions above are for informational purposes only. The suitability of the system components for the application detail and to the purpose should be tested beforehand by the consumer / user. Applications that made other than the application recommendations specified in the product technical sheet are under the responsibility of the consumer / user.

## Waterproofing

3031 İzoseal 2K+ two component crystallized waterproofing and protection mortar should be applied on the concrete surface with brush or roller as 2 or 3 layers. 3031 İzoseal 2K+, when applied to concrete surface, penetrates through the cavities into the concrete and active chemicals in its formula react with free lime and moisture in the capillary cavities of concrete and form insoluble crystal structures. These crystals fill the cavities and shrinkage cracks in the concrete to prevent the passage of water and make the concrete resistant to water pressure from inside and outside.

## Finishing Application

Entire surface should be coated with 4041 Kalekim İnce Siva (Finish Plaster) in order to level the surface and make it ready for the next application following the waterproofing application in order to convert the basement floors into lively, joyful, colourful, healthy and comfortable living areas. It is recommended to use Gypsastar as primer before plastering.

## FOUNDATION WALL INSULATION

### Positive / Negative Side Crystalline Waterproofing Solutions



- 1 / Concrete Shear Wall
- 2 / İzoseal 2K+ (Min. 2 coat application)
- 3 / Gypsastar
- 4 / Kalekim İnce Siva / Finish Plaster
- 5 / Macunart
- 6 / Silastar
- 7 / Isitut



#### Surface Preparation

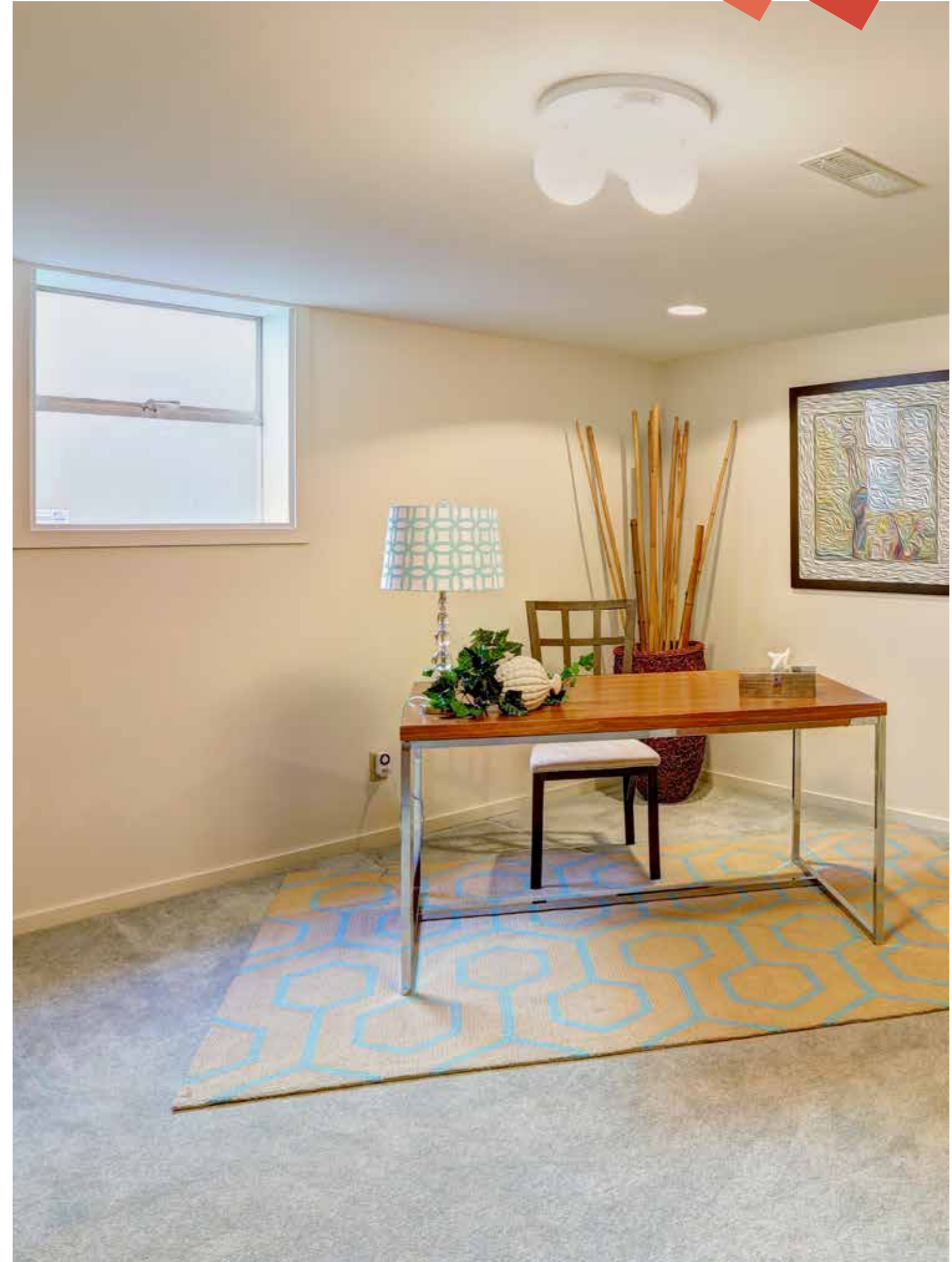
The application surface should be checked before waterproofing. The surface should be clean, smooth and sound. It is necessary to clean loose particles, residues that will prevent adhesion and penetration of the product into the concrete, such as dust, dirt, oil, soil, on the concrete surface where crystallized waterproofing materials give high performance, thoroughly by using water jet, sand blasting or wire brush. Defective applications such as cracks, capillary cracks and segregation on the concrete surface should be opened by breaking and cleaned and 3032 İzoseal 2K+ should be applied to the cleaned areas, followed by the rectification phase by using 4002 Tamirart 30 thick repair mortar or 4004 Tamirart S40 structural repair mortar. The surface should be saturated with water before proceeding with waterproofing application. It should be noted that the surface is not wet but humid during the application.

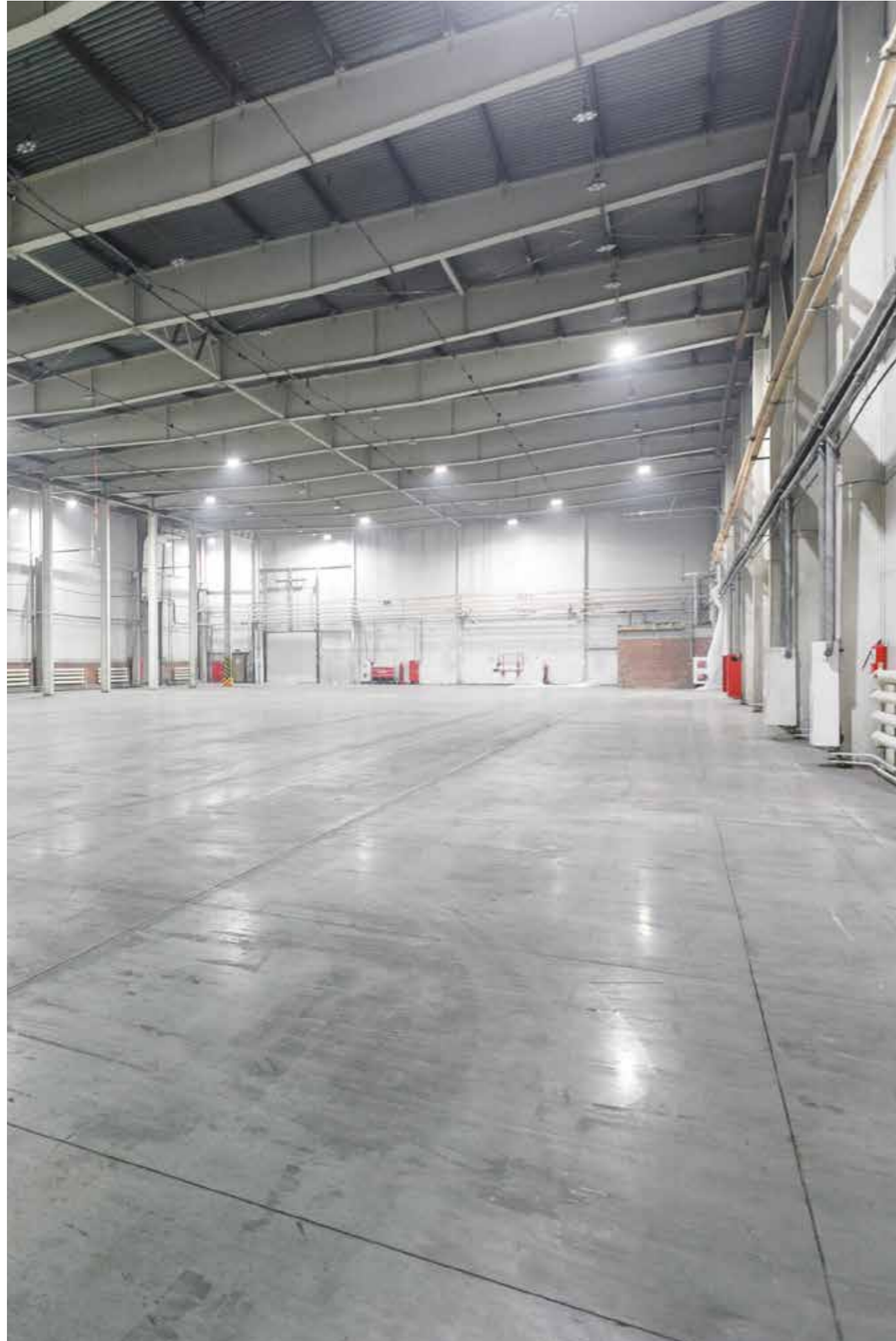
#### Waterproofing

3032 İzoseal 2K+ two component crystallized waterproofing and protection mortar should be applied on the concrete surface with brush or roller as 2 or 3 layers. 3032 İzoseal 2K+, when applied to concrete surface, penetrates through the cavities into the concrete and active chemicals in its formula react with free lime and moisture in the capillary cavities of concrete and form insoluble crystal structures. These crystals fill the cavities and shrinkage cracks in the concrete to prevent the passage of water and make the concrete resistant to water pressure from inside and outside. It eliminates surface leaks and moisture.

#### Finishing Coat Application

Entire surface should be coated with 4041 İnce Siva (Finish Plaster) in order to level the surface and make it ready for the next application following the waterproofing application in order to convert the basement floors into lively, joyful, colourful, healthy and comfortable living areas. Macunart white cement based fine surface preparation putty in white colour, formulated with special binders and chemicals to eliminate surface defects in exterior and interior surfaces is applied on 4041 İnce Siva (Finish Plaster) in order to get a surface ready for painting. Macunart, which is a surface levelling and filler mortar, with high stability, reduces the paint consumption because of its low absorbency, does not cause much dust during sanding and does not prevent the walls from breathing. It creates a healthy and breathing living area with Kale Isitut acrylic based interior finish paint, which has the dullness resembling velvet texture by reducing the thermal loss on wall surface up to 4 times by making thermal insulation effect thanks to micro glass beads in its formula.





## MALL / SCHOOL / HOSPITAL

Self-Levelling Epoxy Floor Solutions  
for Shopping Malls

- 1 / Concrete Surface
- 2 / Grinded Concrete
- 3 / Technica 142
- 4 / Technica 242 SL
- 5 / Scatter Sand
- 6 / Technica 242 SL (Stripping)
- 7 / Technica 242 SL (Top Coat)

2



4 - 6 - 7

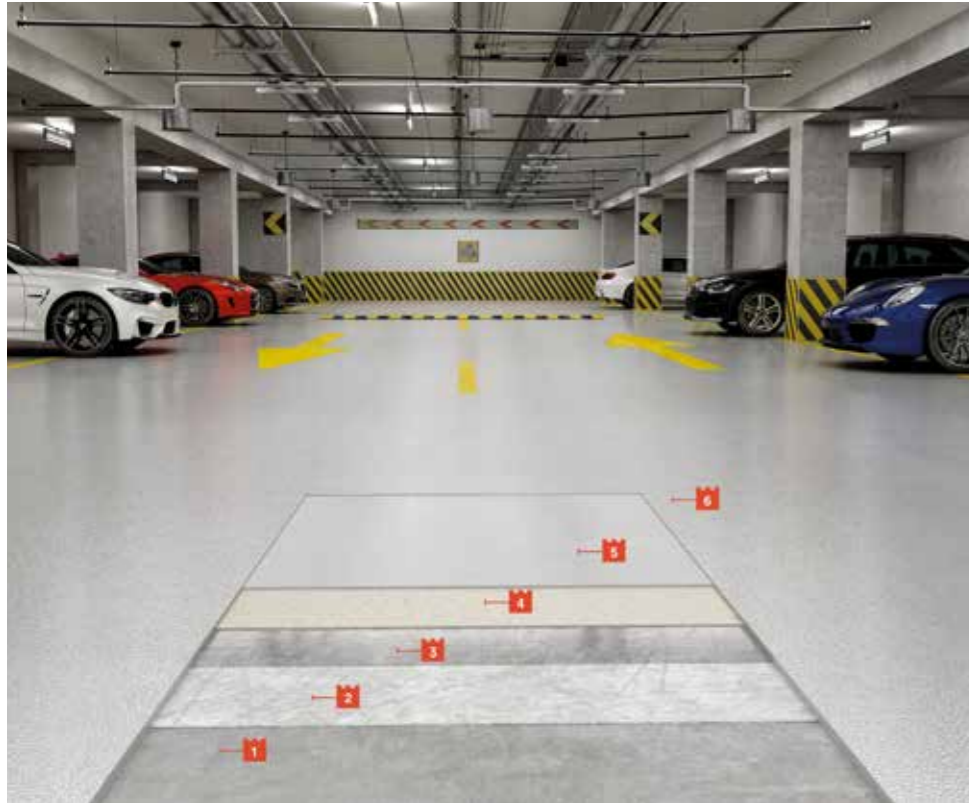


Mechanical surface preparation and if necessary, reinforcement/repair works should be performed before coating in areas such as shopping malls, where epoxy floor solutions with mechanical strength and decorative appearance are requested.

In the first layer primer application, epoxy based solvent-free primer Technica 142 should be used. Sanding, blunting and intermediate layer applications should be done according to the determined system thickness and surface requirements.

In intermediate coat and topcoat application; Technica 242 SL epoxy based solvent-free coating material, which can be applied easily thanks to its self-levelling feature, offers aesthetic solutions for floor applications. It will be long-lasting, bright and vibrant colour, solid appearance and durability. Products and systems should be determined with professional practitioners according to the surface requirements, the traffic density expected on the ground and other effects to be exposed to.

## CARPARKING

Epoxy Floor Solutions  
for Carparks

- 1 / Concrete Surface
- 2 / Grinded Concrete
- 3 / Tecnica 132
- 4 / Filler Sand
- 5 / Tecnica 242 SL
- 6 / Tecnica 342 OP



Mechanical surface preparation and, if necessary, reinforcement / repair work must be carried out on the floors of places such as parking lots, garages, etc. which require high mechanical and abrasion resistance, before coating.

In the first layer of primer application, epoxy based solvent-free primer Tecnica 132, allowing easy application opportunity to the practitioners, should be used. In order to increase the mechanical resistance during intermediate layer applications, Tecnica 242 SL will provide a significant benefit for perfect solidity with the addition of adequate amount of silica sand.

In the last layer application; epoxy based solvent-free coating material Tecnica 342 OP produces long-lasting, durable and non-slip surfaces thanks to its orange peel texture. Products and systems should be determined with professional practitioners according to the surface requirements, the traffic density expected on the ground and other effects to be exposed to.

## WAREHOUSE

Floor Solutions for  
Storage Areas

- 1 / Concrete
- 2 / Tecnica 32 DS / Tecnica 34 DS
- 3 / Tecnica 22 CW / Tecnica 64 LS



Concrete surfaces are subject to wear and dust over time. By applying Tecnica 32 DS and Tecnica 34 DS quartz and corundum based powder surface hardeners to fresh concrete, it is possible to obtain surfaces with higher strength and less abrasion even in different colours. Tecnica 22 CW acrylic based surface curing material ensures a healthier curing with the film layer it forms on concrete surfaces it applied and prevents the formation of shrinkage cracks. Lithium silicate-based liquid surface hardener Tecnica 64 LS on the other hand, can be applied on both fresh and old concrete, resulting in less wearing, non-dusting and glossy surfaces and a long use life. All applications mentioned above can be made on C25 concrete at minimum. With the lithium silicate based liquid surface hardener, Tecnica 64 LS, surfaces with high mechanical strength are obtained in areas under heavy traffic.

## WAREHOUSE

## Epoxy Application Solutions for Floors Exposed to Moisture



- 1 / Concrete Surface
- 2 / Grinded Concrete
- 3 / Tecnica 152
- 4 / Tecnica 332



The surfaces where epoxy based materials will be used, must have the moisture content below 5%. For floors above this moisture level, a high moisture-tolerant, solvent-free epoxy primer Tecnica 152 should be used for surface preparation. Mechanical surface preparation and, if necessary, reinforcement/repair work should be carried out on the floors before this operation. It is possible to use a solvent-free epoxy coating material Tecnica 332 applied with a roller on areas that will be exposed to light pedestrian traffic. Products and systems must be determined with professional practitioners according to the surface requirements, the traffic density expected on the ground and other effects to be exposed to.

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## RENOVATION &amp; NEW CONSTRUCTION

## Ceramic Tile Application Solutions in Underfloor Heating Systems



- 1 / Concrete Surface
- 2 / Technoflex
- 3 / Underfloor Heating System
- 4 / Surface Levelling Concrete
- 5 / Kalekim Astar (Primer)
- 6 / Technoflex
- 7 / Ceramic Tile
- 8 / Fugaflex



### Surface Preparation

It should be ensured that the application surface is free of residues that will prevent adhesion, has taken its cure and is sound. It should be ensured that the heating elements are concealed in a screed suitable for underfloor heating systems and have passed all heating tests. Deformation and cracks in the screed, which may occur due to expansion, are controlled. If there deformations or cracks are observed on the screed, these should be repaired with 4002 Tamirart 30 thick repair mortar. 4505 Kalekim Astar (Primer) should be applied before application of waterproofing material in order to balance porosity of the screed surface, to reduce the absorbency and to prepare a homogenous sub-surface.

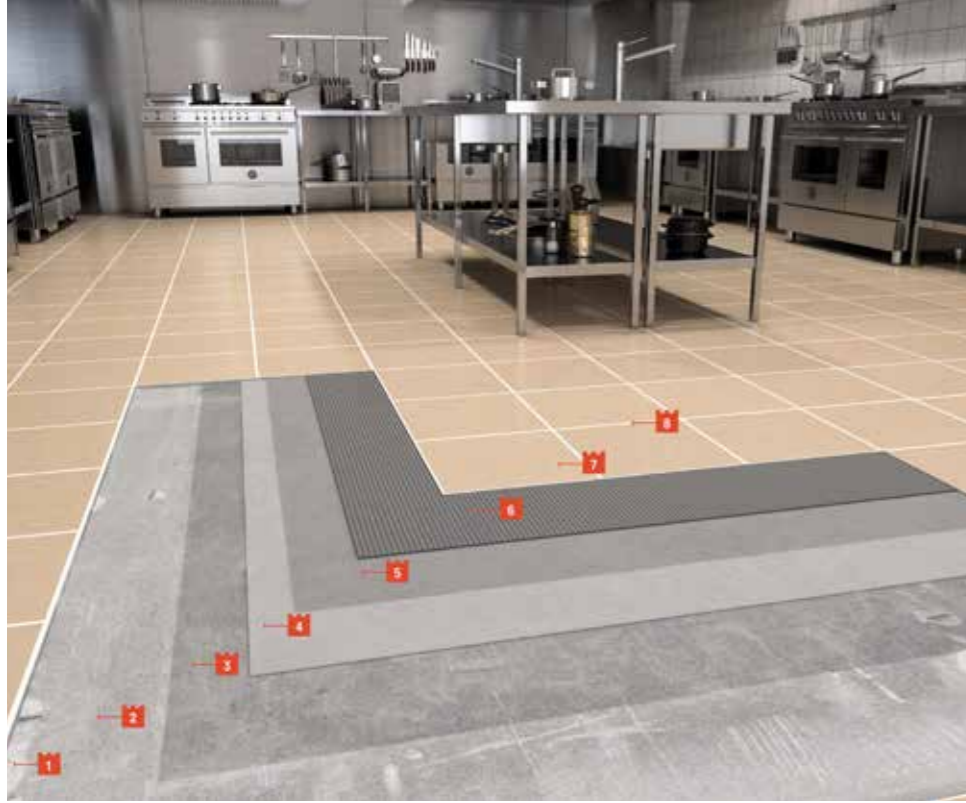
### Tiling and Grouting

In underfloor heating systems, the surface is subject to more movement than normal surfaces due to sudden temperature changes. While the surface is stretched during heating, shrinkage occurs when the system cools down. Only flexible materials can tolerate these movements. Adhesive featuring with minimum of S1 class should be used in the bonding process and flexible grouting mortar should be preferred for grouting. Ceramic tiles should be bonded with Kalekim s flexible adhesive mortar 1054 Technoflex and 2300 Fugaflex flexible grouting mortar should be used for grouting. A properly performed tile application not only contribute to long service life of these systems, but also ensure that they are more efficient.

The application solutions above are for informational purposes only. The suitability of the system components for the application detail and to the purpose should be tested beforehand by the consumer / user. Applications that made other than the application recommendations specified in the product technical sheet are under the responsibility of the consumer / user.

## RENOVATION &amp; NEW CONSTRUCTION

## Ceramic Tile Application Solutions in Rough Floors



- 1 / Concrete Surface
- 2 / Tamirart S40
- 3 / Kalekim Astar (Primer)
- 4 / Mastar 10
- 5 / Kalekim Astar (Primer)
- 6 / Technofull
- 7 / Ceramic Tile
- 8 / Fugaflex



## Surface Preparation

The surface should be levelled before the ceramic tile application on unlevelled floors. Surface levelling operations to be performed by using tile adhesive mortar only, should be avoided. Otherwise, proper bearing thickness (thickness with ceramic adhesive) cannot be achieved and an aesthetic finish cannot be achieved in the arrangement of the tiles.

In addition; ceramic tiles which are not at the same level, or at a higher or lower position, may cause accidents. Surface repair should be carried out by using 4002 Tamirart 30 and 4004 Tamirart S40 repair mortars on floors which are levelled but have regional defects. On the surfaces that require levelling, it is possible to level the ground up to 10 mm with one layer by using the self-levelling screed 4201 Mastar 10.

## Tiling and Grouting

Prior to the application of the Mastar 10, the surface should be primed and freed from dust with 4505 Kalekim Astar (Primer) acrylic primer, absorbency should be decreased and adhesion strength should be increased. In the surface levelling up to 3 cm, Kalekim Primer should be applied between the layers of Mastar 10 application.

Before the application of ceramic tiles, it should be ensured that the surface defects are at around 1 mm level maximum and the ceramic application should be made by applying Kalekim Astar (Primer) again. It is possible to get a quick bonding operation with C2FE class 1066 Technofull allowing easy application on surfaces thanks to its consistency and covers the backside of the tile completely with no needs to apply the combined method (application of the adhesive on both the backside of the ceramic tile and on the surface).

For the grouting application, 2300 Fugaflex should be applied safely in interior and exterior places with its flexible structure.

## RENOVATION &amp; NEW CONSTRUCTION

## Non-dusting Tile Application Solutions



- 1 / Betonarme Yüzey
- 2 / B-Tone
- 3 / Kalekimtozumaz
- 4 / Ceramic Tile
- 5 / Ultrafuga Flex Tozumaz



Since cement-based materials are present in the packaging in powder form, it is inevitable that the particles are dispersed around when they are taken into the container for mixing / preparing the products with water or liquid components.

This is also a disturbing situation for practitioners. It is possible to provide a cleaner and healthier environment by using non-dusting adhesive and grouting materials to prevent this situation especially in indoor areas. In this way, renovation works can be carried out without stopping the life in houses, offices or other places.

It is possible to perform a clean bonding application with 1053 KalekimTozumaz (Dust-Free Tile Adhesive), which features standard performance, reduced sliding properties and long working time and with a very clean and non-dusting grouting application with 2700 Ultrafuga Flex Tozumaz.



## RENOVATION &amp; NEW CONSTRUCTION

## Solutions for Thin and Large Size Ceramic Tile Application on Concrete / Plastered Surfaces



- 1 / Betonarme Yüzey
- 2 / B-Tone
- 3 / Ultratech
- 4 / Ceramic Tile
- 5 / Ultrafuga Flex
- 6 / Kalepolymas



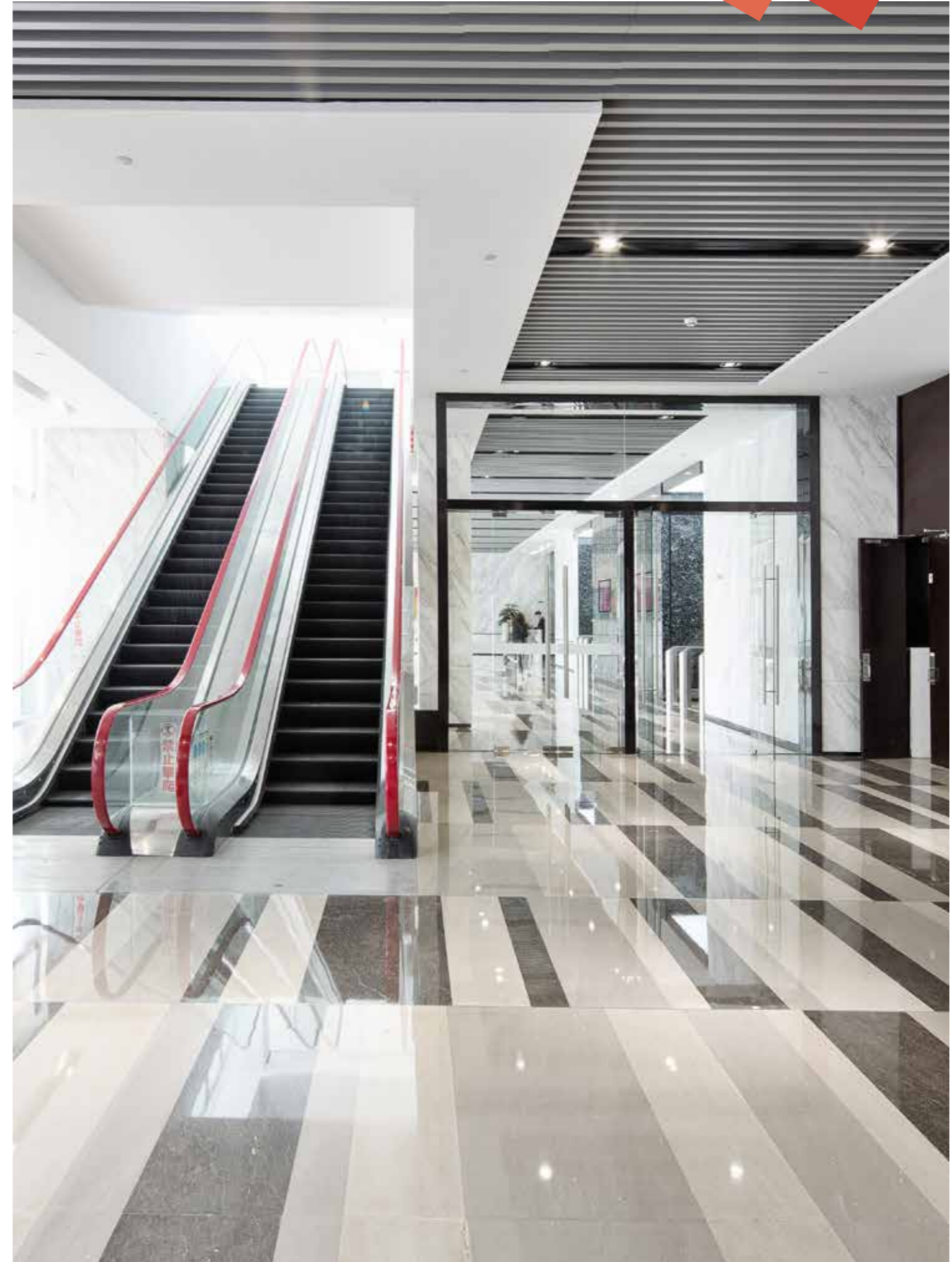
## Surface Preparation

It should be ensured that the reinforced concrete or plastered surface are totally cured, free of residues that will prevent adhesion and sound. If there are defects on the application surface, it should be repaired with 4001 Tamirart 5 or 4002 Tamirart 30 repair mortars. If there are structural cracks on the surface, 4004 Tamirart S40 should be used. Rough surfaces should be levelled with 4201 Master 10 self-levelling screed. Extremely absorbent surfaces should be moistened or 4505 Kalekim Astar (Primer) should be applied before application.

## Tiling and Grouting

When bonding thin and large-sized ceramics, the combined method (both the application of the adhesive to the back and on the surface of the coating material) should be applied and the expansion joints should be left in large areas while avoiding the application of very little joint gaps in order to get a long-lasting application. Two-component, high-performance, highly flexible 1059 Ultratech adhesive mortar should be used for the bonding thin and large size ceramic tiles (3 mm - 5 mm). 1059 Ultratech allowing to proceed with grouting by setting extra fast in 3 hours, is a cement based adhesive that provides the solution for bonding of the coating materials featuring fiber glass bearing nets at the back.

In grouting applications, flexible material should be used just like in adhesives. 2500 Ultrafuga Flex is not only dirt resistant thanks to its water repellency brought by its silicone content, but also contributes to a long term use thanks to its flexibility. In expansion joints, polyurethane based sealant 8021 Kalepolymas grouting offers ideal application and usage. In this way, the whole system will achieve full compliance with all kinds of ground movements.





## RENOVATION & NEW CONSTRUCTION

### Ready-to-Use Ceramic Tile Application Solutions



- 1 / Gypsum board - Gypsum Surface
- 2 / Supertech
- 3 / Ceramic Tile
- 4 / Fugatech

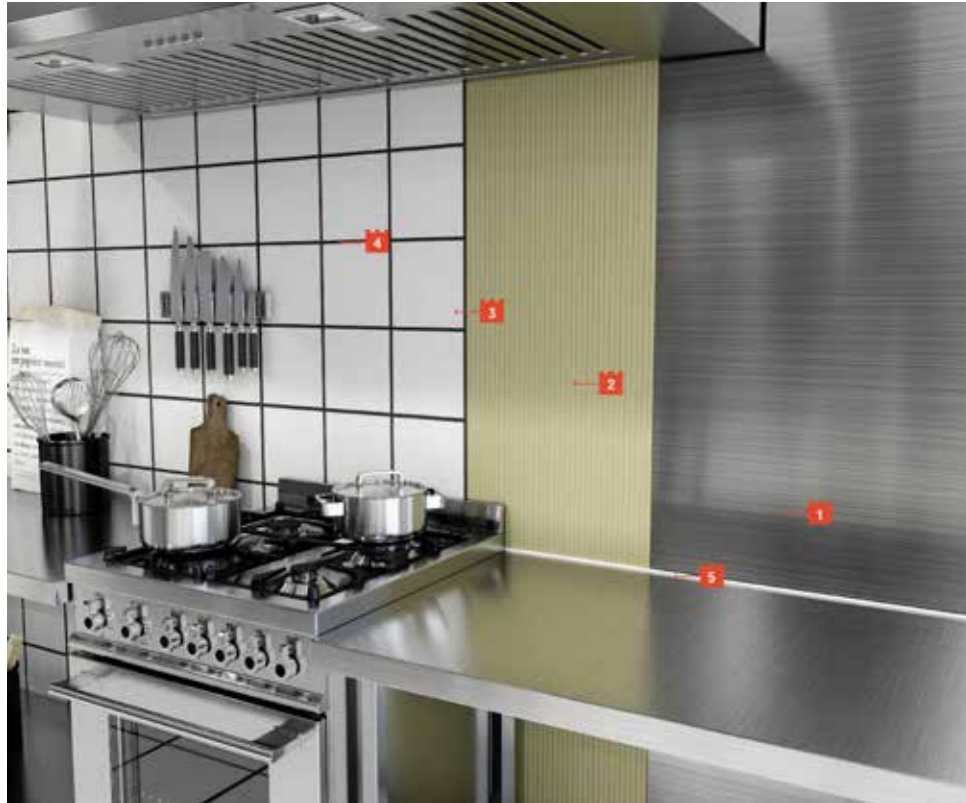


#### Surface Preparation

Bonding small and medium size ceramics and applying grouting in your home, your office with your own professionalism is much easier with ready-to-use materials! You can perform an application that is both easy and clean by using 1230 Supertech ready to use acrylic based, paste type ceramic adhesive and 2800 Fugatech grouting mortar. While covering small spaces like counter clearance easily by using 1.5 and 5 kg packages of Supertech, you can obtain the decorative appearance you desire by choice one from white, beige or grey colour options of Fugatech.

Thus, without using any primer and cement based material, you can complete the ceramic works in small areas in less time and with less effort. Once you complete your works, the material remaining in the container should be covered with nylon inside the package and the lid should be closed tightly so as not to get air in order to use the material again.

## RENOVATION &amp; NEW CONSTRUCTION

Solutions for Tile Application on Challenging Surfaces  
(Wood, Metal, Glass)

- 1 / Metal Surface
- 2 / Technopur
- 3 / Ceramic Tile
- 4 / Epotech G (Industrial Kitchen) / Fugatech
- 5 / Kalepolymas



## Surface Preparation

It is not possible to obtain high-performance and long-lasting bonding with cement-based adhesives in ceramic applications to be made on challenging surfaces coated with wood, metal, wood chip cement board or epoxy. Resin-based adhesives must be used for an excellent and long-lasting adhesion.

The application surface should be clean, dry and sound. If metal surfaces have rusted areas, they should be cleaned by mechanical methods such as sanding or sandblasting. Metal and glass surfaces should be wiped with acetone to remove any residues that may prevent adhesion. Wood surfaces should be strictly checked for soundness and repaired if necessary. Old epoxy paint coated surfaces should be free of residues such as oil.

## Tiling and Grouting

It is possible to bond coating materials on challenging surfaces such as wood, metal and glass without even any need for applying any primer, by using 1411 Technopur polyurethane based, solvent-free, high performance adhesive. In grouting application, epoxy based easily cleanable grout 2956 Epotech G must be used. For corner joint polyurethane based 8021 Kalepolymas grouting should be applied.

## RENOVATION &amp; NEW CONSTRUCTION

Solutions for Tile Application  
on Existing Tiles

- 1 / Existing Ceramic Tile
- 2 / Kalekim Dolgulu Astar / Smooth Surface Primer
- 3 / Granitech
- 4 / Ceramic Tile
- 5 / Ultrafuga



## Surface Preparation

First of all, the soundness of existing ceramic must be checked. If existing ceramics have lost their strength locally or are broken, repair works should be done first. If there are any broken or displaced tiles, these tiles should be removed and the gap must be filled with 4002 Tamirart 30 thick repair mortar. If there are structural cracks on the surface, 4004 Tamirart S40 should be used. You can fill the empty space by bonding an intact tile. When you are sure that tiles are solid or the floor can withstand bonding new tiles, the surface can be renovated without removing existing tiles. The surface must be cleaned and made suitable for adhesion.

Prior to application, the surface must be roughened with 4506 Kalekim Dolgulu Astar (Smooth Surface Primer) in order to increase the bonding on very bright and less absorbent surfaces such as ceramic and marble under any situations.

## RENOVATION &amp; NEW CONSTRUCTION

Solutions for Ceramic Tile  
Application on Painted Surfaces

2 / Kalekim Dolgulu Astar /  
Smooth Surface Primer

3 / Granitech

4 / Ceramic Tile

5 / Ultrafuga



## Surface Preparation

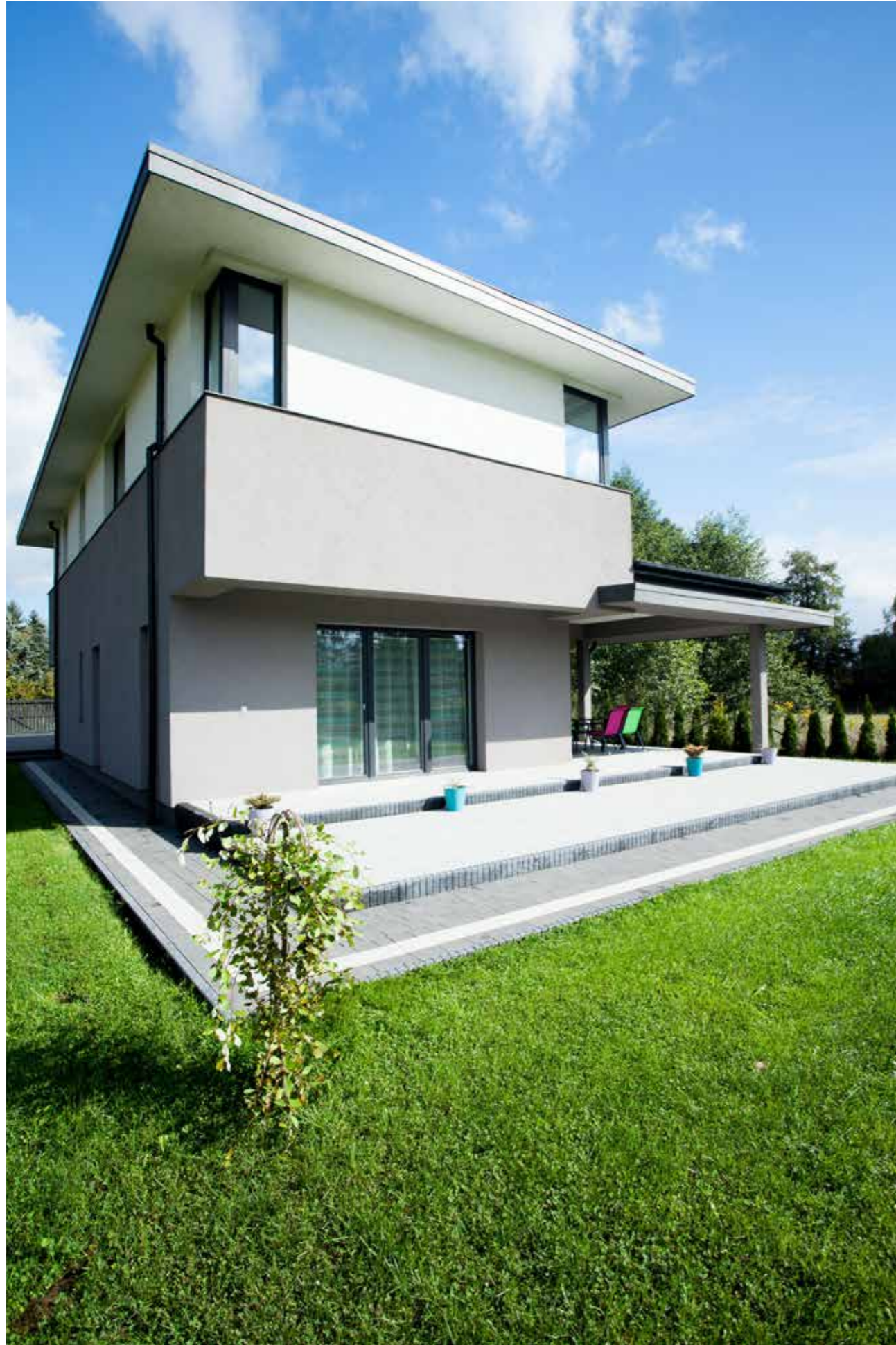
The soundness of the surface should be checked and the blistered layers should be scraped until reaching the solid surface for the applications to be performed on painted surfaces. Notching or sanding should be performed on painted surfaces in order to increase the bonding factor. In order to increase adhesion, 4506 Kalekim Dolgulu Astar (Smooth Surface Primer) should be applied.

## Tiling and Grouting

Bonding should be made by using 1051 Kalekim standard performance adhesive if it is performed by using \*small size coating materials and by using 1055 Granitech high performance adhesive if it is performed by using medium and \*large size coating materials. For grouting, high performance grouting materials such as 2200 Ultrafuga and 2300 Fugaflex should be used.

— You can see the adhesive alternatives for ceramic sizes in more detail in the Adhesive Selection Table.





## GUARANTEED SYSTEM

### EPS Thermal Insulation Systems



- |                                  |                               |
|----------------------------------|-------------------------------|
| 1 / Plastered Surface            | 7 / Meshed PVC Edging Profile |
| 2 / Tamirart 30                  | 8 / EPS Reinforcement Mesh    |
| 3 / Foamtech                     | 9 / Foamplast (2nd Layer)     |
| 4 / EPS Thermal Insulation Board | 10 / Silastar                 |
| 5 / Kalekim Anchor               | 11 / Silikonatex              |
| 6 / Foamplast (1st Layer)        |                               |



#### Surface Preparation

The horizontal and vertical scales of all facades of the building must be determined before starting the application. If there are any parts that prevent adhesion on the surface, they should be removed. The subbasement profile is fixed 20 cm below the subbasement level. Correct fixing of the subbasement profile at horizontal plane and mesh corner profile vertically is necessary for proper implementation of entire system.

#### Application

Kalekim EPS Thermal Insulation Board adhesive mortar 1057 Foamtech should be prepared by mixing with water according to application detail. 1057 Foamtech should be applied on one surface of the thermal insulation board entirely continuously or continuously/as stripes along the edges of the thermal insulation board with a trowel or by point / block in the middle. Screw anchors should be applied at least 24 hours after bonding. The plate and wall are drilled with a drill to fix the anchor. Hole length should be drilled in a way that is 1 cm larger than the anchor length. The anchors are placed in all the corners of the plates in a way that 2 of them coincide with the middle of the plates and the plastic nails are

pounded. Anchors are fixed in a way that they are introduced minimum 40 mm into concrete and 50 mm in bricks and other hollow blocks. The drill diameters should be selected the same as the anchor diameter. In the case of using plastic nailed anchors on reinforced concrete surfaces, the diameter of the drill is selected as 1 mm wider than the anchor diameter. It is necessary to increase the number of anchors in the corners. Windows, doors and building corners are reinforced with mesh corner profile and plastered with 4057 Foamplast plaster. The first layer of plaster should be applied at least 24 hours after bonding. Homogeneous plaster thickness (average) should be 2.00 mm. The windows, doors and building corners are reinforced with Kalekim Mesh PVC Corner Profile and the horizontal corbels are reinforced with a mesh drip profile at the corners and kept over the first plaster layer. Surface mesh is pressed lightly by means of a steel trowel before the plaster dries. Windows and door corners should be reinforced with bridge wing mesh. Joints of the mesh should overlap 10 cm horizontally and vertically with each other. And by applying a second the plaster layer, a smooth surface is obtained. Homogeneous thickness of the second layer of plaster (average) should be 1.00 mm.

#### Paint Application

Following the application and curing of 4057 Foamplast plaster, surface must be primed with Silastar in order to balance absorbance of surface and reduce paint consumption. Paint application must be made by using the colours chosen from the exterior facade colour palette designed for Silikonatex.

## GUARANTEED SYSTEM

## Stone Wool Thermal Insulation Systems



- |   |                               |
|---|-------------------------------|
| 1 / Plastered Surface                   | 7 / Meshed PVC Edging Profile |
| 2 / Tamirart 30                         | 8 / Reinforcement Mesh        |
| 3 / Mantotech                           | 9 / Mantoplast (2nd Layer)    |
| 4 / Stone Wool Thermal Insulation Board | 10 / Minart Dekor 300         |
| 5 / Kalekim Anchor with Steel Nail      | 11 / Silastar                 |
| 6 / Mantoplast (1st Layer)              | 12 / Performa NS              |



## Surface Preparation

The horizontal and vertical scales of all facades of the building must be determined before starting the application. If there are any parts that prevent adhesion on the surface, they should be removed. The subbasement profile is fixed 20 cm below the subbasement level. Correct fixing of the subbasement profile at horizontal plane and mesh corner profile vertically is necessary for proper implementation of entire system.

## Application

Kalekim Stone Wool Thermal Insulation Board adhesive mortar Mantotech should be prepared by mixing with water according to application detail. Mantotech should be applied on one side of the board along its edge and as a bulk on it. Adhesive should be applied to the board by means of a trowel in a line form on the edges and onto it as 6 pieces. Rockwool boards should be pressed against each other for bonding. The mortar percolating through during the compaction of the boards must be cleaned. The smoothness of the outer surface of the insulation should be checked after the boards have been bonded and possible roughness and slight curvatures on the rock wool board must be cleaned by using a thick sandpaper with a handle. It may be necessary to cut the board during the application. This can

be done by using simple cutting tools. Thermal insulation boards must be applied in the corners of the building and on the building surface with tusk tenon method. Window and door corners should be insulated using the whole plate to prevent cracks and fractures in the corners. Kalekim anchor with steel nail should be applied at least 24 hours after bonding. Depending on the condition of the insulated surface, heat insulation thickness, building height and the load capacity of the façade, Kalekim anchor in appropriate size should be used. Windows, doors and building corners are reinforced with mesh corner profile and plastered with plaster. Kalekim thermal insulation board plaster Mantoplast is prepared according to manufacturer's recommendations. The first layer of plaster should be applied at least 24 hours after bonding. Homogeneous plaster thickness (average) should be 2.00 mm. Application should be made with a steel trowel. In order to get a homogenous thickness, the first layer is levelled on the board by using a 3x3 mm notched trowel. The windows, doors and building corners are reinforced with Kale Mesh PVC Corner Profile and the horizontal corbels are reinforced with a mesh drip profile at the corners and kept over the first plaster layer. Surface mesh is pressed lightly by means of a steel trowel before the plaster dries. Windows and door corners should be reinforced with bridge wing mesh. Joints of the mesh should overlap 10 cm

horizontally and vertically with each other. And by applying a second the plaster layer, a smooth surface is obtained. Homogeneous thickness of the second layer of plaster (average) should be 1.00 mm. Following the application and curing of Mantoplast plaster, application of Minart Silver or Minart Dekor decorative finish coating, which can breathe, has the thickness of minimum 1.00-2.00 mm, solvent free and has a rough surface, is performed. In order to ensure better adhesion of Minart Silver or Minart Dekor decorative finish coating to the plaster, Kale Silastar must be applied before as a single layer. Kale Minart Silver or Minart Dekor decorative coating is applied on dried primer by using a steel/plastic trowel and the system is completed by creating the texture.

## Paint Application

Once Minart Silver or Minart Dekor decorative coating gets its cure, primer application should be made with Kale Silastar (Silicone Enhanced Primer) in order to reduce consumption by balancing the surface absorption rate and increase adhesion of the paint to be applied on it. Paint application must be made by using the colours chosen from the exterior facade colour plate designed for Performa NS.

## GUARANTEED SYSTEM

## Stone Wool Thermal Insulation Systems



- |   |                               |
|---|-------------------------------|
| 1 / Plastered Surface                   | 7 / Meshed PVC Edging Profile |
| 2 / Tamirart 30                         | 8 / EPS Reinforcement Mesh    |
| 3 / Mantostone                          | 9 / Foamlplast (2nd Layer)    |
| 4 / Stone Wool Thermal Insulation Board | 10 / Minart Dekor 100         |
| 5 / Kalekim Anchor with Steel Nail      | 11 / Silastar                 |
| 6 / Mantoplast (1st Layer)              | 12 / Performa+                |



## Surface Preparation

The horizontal and vertical scales of all facades of the building must be determined before starting the application. If there are any parts that prevent adhesion on the surface, they should be removed. The subbasement profile is fixed 20 cm below the subbasement level. Correct fixing of the subbasement profile at horizontal plane and mesh corner profile vertically is necessary for proper implementation of entire system.

## Application

Kalekim Stone Wool Thermal Insulation Board adhesive mortar and plaster Mantostone should be prepared by mixing with water according to application detail. Mantostone should be applied on one side of the board along its edge and as a bulk on it. Adhesive should be applied to the board by means of a trowel in a line form on the edges and onto it as 6 pieces. Stone wool boards should be pressed against each other for bonding. The mortar percolating through during the compaction of the boards must be cleaned

The smoothness of the outer surface of the insulation should be checked after the boards have been bonded and possible roughness and slight curvatures on the rock wool board must be cleaned by using a thick sandpaper with a handle.

It may be necessary to cut the board during the application. This can be done by using simple cutting tools.

Thermal insulation boards must be applied in the corners of the building and on the building surface with tusk tenon method. Window and door corners should be insulated using the whole plate to prevent cracks and fractures in the corners. Screw anchors should be applied at least 24 hours after bonding. Depending on the condition of the insulated surface, heat insulation thickness, building height and the load capacity of the façade, Kalekim anchor in appropriate size should be used. Windows, doors and building corners are reinforced with mesh corner profile and plastered with plaster. Kalekim's light-weight thermal insulation board plaster Mantostone is prepared according to recommendations stated in its TDS. The first layer of plaster should be applied at least 24 hours after bonding. Homogeneous plaster thickness (average) should be 2.00 mm. Application should be made with a steel trowel. In order to get a homogenous thickness, the first layer is levelled on the board by using a 3x3 mm notched trowel. The windows, doors and building corners are reinforced with Kale Mesh PVC Corner Profile and the horizontal corbels are reinforced with a mesh drip profile at the corners and kept over the first layer of plaster. Reinforcement mesh is pressed lightly by means of a steel trowel before the

plaster dries. Windows and door corners should be reinforced with bridge wing mesh. Joints of the mesh should overlap 10 cm horizontally and vertically with each other.

By applying a second layer of the plaster, a smooth surface is obtained. Homogeneous thickness of the second layer of plaster should be average 1.00 mm. Following the application and curing of Mantostone, application of mineral based decorative finish coating Minart Silver or Minart Dekor with the thickness of minimum 1.00-2.00 mm is performed. In order to ensure better adhesion of Minart Silver or Minart Dekor to the plaster, surface must be primed with Silastar as a single layer. Minart Silver or Minart Dekor decorative coating is applied on dried primer by using a steel/plastic trowel and the system is completed by creating the desired texture.

## Paint Application

Once Minart Silver or Minart Dekor decorative coating gets its cure, primer application should be made with Silastar in order to reduce consumption by balancing the surface absorption and increase adhesion of the paint to be applied on it. Paint application must be made by using the colours chosen from the exterior facade colour palette designed for Performa+.

## GUARANTEED SYSTEM

### EPS Thermal Insulation Systems



- |                                  |                               |
|----------------------------------|-------------------------------|
| 1 / Plastered Surface            | 7 / Meshed PVC Edging Profile |
| 2 / Tamirart 30                  | 8 / EPS Reinforcement Mesh    |
| 3 / Mantomix                     | 9 / Mantomix (2nd Layer)      |
| 4 / EPS Thermal Insulation Board | 10 / Minart Silver 200        |
| 5 / Kalekim Anchor               | 11 / Silastar                 |
| 6 / Mantomix (1st Layer)         | 12 / Joker Plus EXT           |



#### Surface Preparation

The horizontal and vertical scales of all facades of the building must be determined before starting the application. If there are any parts that prevent adhesion on the surface, they should be removed. The subbasement profile is fixed 20 cm below the subbasement level. Correct fixing of the subbasement profile at horizontal plane and mesh corner profile vertically is necessary for proper implementation of entire system.

#### Application

Kalekim EPS Thermal Insulation Board adhesive and plaster mortar Mantomix should be prepared by mixing with water according to application detail. Mantomix should be applied on one surface of the thermal insulation board entirely continuously or continuously/as stripes along the edges of the thermal insulation board with a trowel or by point / block in the middle. Screw anchors should be applied at least 24 hours after bonding. The plate and wall are drilled with a drill to fix the anchor. Hole length should be drilled in a way that is 1 cm larger than the anchor length. The anchors are placed in all the corners of the plates in a way that 2 of them coincide with the middle of the plates and the plastic nails are

pounded. Anchors are fixed in a way that they are introduced minimum 40 mm into concrete and 50 mm in bricks and other hollow blocks. The drill diameters should be selected the same as the anchor diameter. In the case of using plastic nailed anchors on reinforced concrete surfaces, the diameter of the drill is selected as 1 mm wider than the anchor diameter. It is necessary to increase the number of anchors in the corners. Windows, doors and building corners are reinforced with mesh corner profile and plastered with Mantomix plaster.

The first layer of plaster should be applied at least 24 hours after bonding. Homogeneous plaster thickness (average) should be 2.00 mm. The windows, doors and building corners are reinforced with Kalekim Mesh PVC Corner Profile and the horizontal corbels are reinforced with a mesh drip profile at the corners and kept over the first plaster layer. Surface mesh is pressed lightly by means of a steel trowel before the plaster dries. Windows and door corners should be reinforced with bridge wing mesh. Joints of the mesh should overlap 10 cm horizontally and vertically with each other. And by applying a second the plaster layer, a smooth surface is obtained. Homogeneous thickness of the second layer of plaster (average) should be 1.00 mm.

Following the application and curing of Mantomix plaster, application of Minart Silver or Minart Dekor decorative finish coating, which can breathe, has the thickness of minimum 1.00-2.00 mm, solvent free and has a rough surface, is performed. In order to ensure better adhesion of Minart Silver or Minart Dekor decorative finish coating to the plaster, Kale Silastar must be applied before and as a single layer. Kale Minart Silver or Minart Dekor decorative coating is applied on dried primer by using a steel/plastic trowel and the system is completed by creating the texture.

#### Paint Application

Once Minart Silver or Minart Dekor decorative coating gets its cure, primer application should be made with Kale Silastar (Silicone Enhanced Primer) in order to reduce consumption by balancing the surface absorption rate and increase adhesion of the paint to be applied on it. Paint application must be made by using the colours chosen from the exterior facade colour plate for Joker Plus EXT.

## RENOVATION & NEW CONSTRUCTION

### Outdoor Granite Ceramic Tile Application Solutions



- |                              |
|------------------------------|
| 1 / Concrete Surface         |
| 2 / B-Tone                   |
| 3 / Tamirart 5 / Tamirart 30 |
| 4 / Kalekim Astar (Primer)   |
| 5 / Technomax 30             |
| 6 / Kalepolymas              |
| 7 / Ceramic Tile             |
| 8 / Fugaflex                 |



#### Surface Preparation

It should be ensured that the reinforced concrete or plastered surface are totally cured, free of residues that will prevent adhesion and sound. If there are defects on the application surface, it should be corrected with 4001 Tamirart 5 or 4002 Tamirart 30 repair mortars. If there are structural cracks on the surface, 4004 Tamirart S40 should be used. Extremely absorbent surfaces should be moistened or 4505 Kalekim Astar (Primer) should be applied before application.

#### Tiling and Grouting

Two component 1060 Technomax 30 should be used for bonding coating materials such as large size ceramic, granite ceramics up to 30 meter high on building exterior.

The combined method (both the application of the adhesive to the back and on the surface of the coating material) should be applied for bonding. It is recommended to support with mechanical fixing in addition to the bonding method in the application of coating materials which are larger 60x60 cm up to 15 m high and 40x40 cm up to 30 m high on building exteriors. In the joint grouting application, 2300 Fugaflex flexible grouting mortar, resistant to external façade factors, should be used. If the façade coated is a plain façade without windows, an expansion joint should be left in every 4-5 m horizontally and vertically and these joints should be filled with 8021 Kalepolymas Polyurethane Sealant.

## RENOVATION &amp; NEW CONSTRUCTION

Natural Stone Coating  
Solutions

- 1 / Plastered Surface
- 2 / Kalekim Astar (Primer)
- 3 / Technoflex
- 4 / Natural Stone
- 5 / Fugaflex
- 6 / Durex



## Surface Preparation

It should be ensured that the reinforced concrete or plastered surface are totally cured, free of residues that will prevent adhesion and sound. If there are defects on the application surface, it should be repaired with 4001 Tamirart 5 or 4002 Tamirart 30 repair mortars. If there are structural cracks on the surface, 4004 Tamirart S40 should be used. Extremely absorbent surfaces should be moistened or 4505 Kalekim Astar(Primer) should be applied before application.

## Tiling and Grouting

In natural stone applications to be made on the exterior walls, the product should be selected by taking into consideration the dimensions of the stone in addition to its characteristics such as weight and absorbency. In the application of light coloured natural stones; it should be preferred to use white colour adhesive against the risk of the appearance of the colour of the adhesive which may be caused by the absorption of the stone. White colour options of S1 class flexible adhesive 1054 Technoflex allows bonding of medium-sized natural stones securely on exterior facades. In the joint grouting application, 2300 Fugaflex flexible grouting mortar should be used for completing the system. For protection of natural stones especially on exterior walls, impregnation insulation and surface protection material can be provided with 3351 Durex or 3353 Profesyonel Durex(ready to use) in order to ensure water impermeability.

Depending on the absorption rate of the stone; it is appropriate to use water with Durex with the correct dilution rate. In extremely absorbent stones, protection can be ensured by forming a film layer on the stones by using 8251 Seracare

## RENOVATION &amp; NEW CONSTRUCTION

Curtain Wall Ceramic Tile  
Application Solutions

- 1 / Kalekim Stone Wool
- 2 / Technobond PU
- 3 / Kalesinterflex
- 4 / Kalesilikon NS



## Surface Preparation

Aluminium profiles to be bonded should be cleaned with an alcohol cloth in order to remove dust and materials that will prevent adhesion. It should be allowed to dry completely before bonding.

## Tiling and Grouting

Ceramics should be bonded on aluminium profiles with double-sided tape and applied polyurethane-based high-performance polyurethane-based flexible 1401 Technobond PU adhesive. Care should be taken to ensure that the thickness of the adhesive applied does not exceed the thickness of the tape. In the grouting application, the neutral curing joint sealant 8018 Kalesilikon NS should be used.



## RENOVATION & NEW CONSTRUCTION

### Solutions for Thin and Large Size Ceramic Tile Application on Concrete / Plastered Surfaces



- 1 / Plastered Surface
- 2 / Kalekim Astar
- 3 / Ultratech
- 4 / Ceramic Tile
- 5 / Ultrafuga Flex
- 6 / Kalepolymas



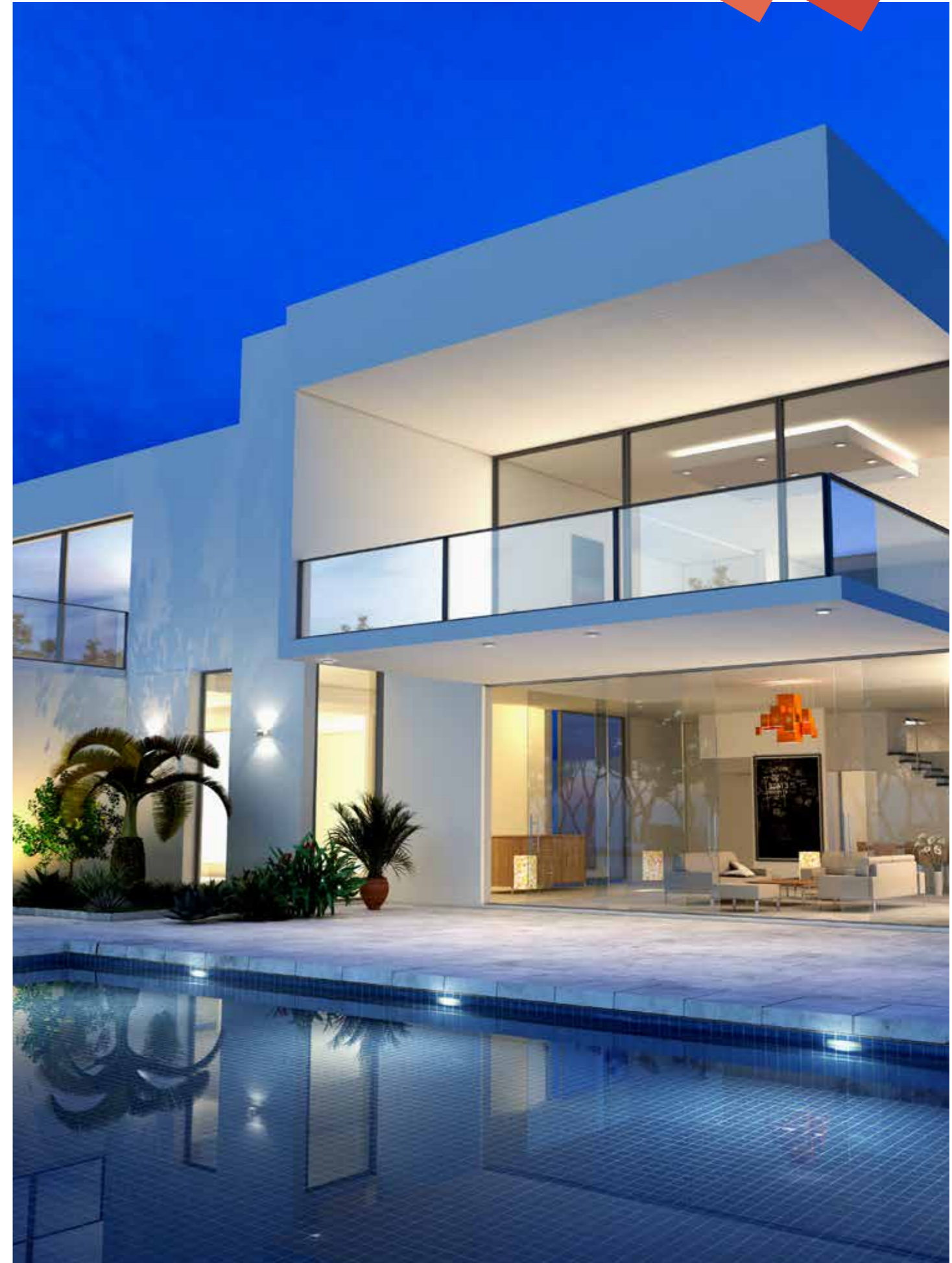
#### Surface Preparation

It should be ensured that the reinforced concrete or plastered surface are totally cured, free of residues that will prevent adhesion and sound. If there are defects on the application surface, it should be repaired with 4001 Tamirart 5 or 4002 Tamirart 30 repair mortars. If there are structural cracks on the surface, 4004 Tamirart S40 should be used. Extremely absorbent surfaces should be moistened or 4505 Kalekim Astar(Primer) should be applied before application.

#### Tiling and Grouting

When bonding thin and large-sized ceramics, the combined method (both the application of the adhesive to the back and on the surface of the coating material) should be applied and the expansion joints should be left in large areas while avoiding the application of very little joint gaps in order to get a long-lasting application. Two-component, high-performance, highly flexible 1059 Ultratech adhesive mortar should be used for the bonding thin and large size ceramic tiles (3mm-5mm). 1059 Ultratech allowing to proceed with grouting by setting extra fast in 3 hours, is a cement based adhesive that provides the solution for bonding of the coating materials featuring fiber glass bearing nets at the back.

In grouting applications, flexible material should be used just like in adhesives. 2500 Ultrafuga Flex is not only dirt resistant thanks to its water repellency brought by its silicone content, but also contributes to a long term use thanks to its flexibility. In expansion joints, polyurethane based sealant 8021 Kalepolymas grouting offers ideal application and usage. In this way, the whole system will achieve full compliance with all kinds of ground movements.



# Protection is in its Chemistry!

*Impermeability, trust, comfort!*



## Waterproofing Applications

- 66 İZOSTOP
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PRODUCT SELECTION CHART

# 3001 İzostop

## Plug Mortar



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Grey Powder	
Shelf life	12 months when stored in the original sealed packaging.	
<b>Application Data</b>		
Application Temperature	(+5°C) - (+35°C)	
Mixing Ratio	0.18 lt water / 1 kg powder	
Pot Life	1 min.	
Ready to Use	2 min.	
Consumption	2 kg for a hole having a volume about 1 lt volume.	
<b>Performance Data</b>		
Flexural Strength (EN 12190)	≥ 3 N/mm <sup>2</sup>	
Compression Strength (EN 12190)	≥ 20 N/mm <sup>2</sup>	
Shrinkage (EN 12617-4) (mm/m)	Max. 2%	

### Description

Waterproofing, rapid setting cement based plug mortar containing mineral fillers which can be applied in powder and mortar form to stop active water leaks.

### Fields of Application

- To plug and dry the water leakages in foundations, basements, concrete walls of water tanks and concrete pipes, tunnels, reservoirs, etc. before the application of waterproofing materials.
- Repairing and waterproofing of cable and pipe holes.
- Repairing and waterproofing of tie rod holes.
- Used for internal waterproofing of basement floors with Kalekim İzoseal.

### Properties

- Can be applied in powder form without mixing with water.
- Sets very rapidly.
- Easy to use.
- Sets without shrinkage, non-cracking.
- Not corrosive for the concrete reinforcement.
- Excellent adhesion.
- High mechanical resistance.
- All kinds of waterproofing materials can be applied on it.

### Preparation of Substrates

- The substrates should be dampened.
- The surface should be clean, dry and sound.
- Remove loose pieces, dust, dirt, oil, grease etc. that may prevent adhesion.
- Cracks and holes should be scraped off and cleaned 2 cm wide and deep.

### Application

#### Mortar Application

- Pour 0.18 lt of water into 1 kg of powder and mold by hand until the mortar reaches the right consistency.
- Make a conic shaped mortar by hand in 30 seconds and compress it on the leaking area with a single and rapid action.
- Apply constant pressure for minimum two minutes until the mortar sets.
- Right after the application, correct disorders and smooth the surface with suitable tools.

#### Powder Application

- A fair amount of powder taken in the palm should be applied with a single movement and pressure to the area where the water is leaking.
- Wear gloves, during application.
- Constant pressure should be applied until active water leakage stops (approximately 5 seconds).

#### Post-Application Protection & Suggestions

- Clean tools and hands with water right after the application.
- Dry time is slower in mixtures prepared using cold water, while dry time is faster in mixtures prepared with hot water. For this reason, warm or hot water can be used in the winter months to control the dry time.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and severe weather conditions.
- Do not stack more than 3 buckets on top of each other.
- Shelf life is maximum 12 months under above mentioned storage conditions.

### Packaging

- 5 kg plastic pail

# 3005 İzostop Rapid

## Very Fast Setting Plug Mortar



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Grey Powder	
Shelf life	12 months when stored in the original sealed packaging.	
<b>Application Data</b>		
Application Temperature	(+5°C) - (+35°C)	
Mixing Ratio	0.23 – 0.25 lt water / 1 kg powder	
Pot Life	Max. 30 seconds	
Heating Time	15 – 30 seconds	
Consumption	2 kg for a hole having a volume about 1 lt.	
<b>Performance Data</b>		
Flexural Strength	≥ 3 N/mm <sup>2</sup>	
Compression Strength (EN 12190)	≥ 25 N/mm <sup>2</sup>	
Shrinkage	Max. 3% mm/m	

### Description

Waterproofing, cement based plug mortar that sets very fast when in contact with water, containing mineral fillers which can be applied in powder and mortar form to stop active water leaks.

### Fields of Application

- To plug and stop the water leakages in foundations, basements, concrete walls of water tanks and concrete pipes, etc. before the application of waterproofing materials.
- Repairing and waterproofing of tie-rod holes.
- Waterproofing of cable and pipe holes.
- Used with Kalekim İzoseal for waterproofing to basement floors.

### Properties

- Sets very rapidly (in 30 seconds).
- Can be applied under water.
- Sets without shrinkage, non-cracking.
- Not corrosive for the concrete reinforcement.
- Excellent adhesion.
- High mechanical resistance.
- All kinds of waterproofing materials can be applied over it.

### Preparation of Substrates

- Application surfaces should be moist.
- The surface needs to be clean, dry and sound.
- Remove loose pieces, dust, dirt, oil, grease etc. that may prevent adhesion.
- Cracks and holes should be scraped off and cleaned 2 cm. wide and depth.

### Application

- Pour 0.23 – 0.25 lt of water into 1 kg of powder and mix it until the mortar reaches the right consistency.
- Make a conic shape mortar by hand in 30 seconds and compress it on the leaking area with a single and rapid action.
- Apply constant pressure for minimum 60 seconds until the mortar sets.
- Right after the application, correct disorders and smooth the surface with tools.

### Post-Application Protection & Suggestions

- Right after the application, clean the application tools.
- Setting time is slower in mixtures prepared using cold water whereas it is faster in mixtures prepared using with hot water. Therefore warm or hot water can be used in winter to control the setting time.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and severe weather conditions.
- Do not stack more than 3 pails on top of each other.
- Shelf life is 12 months when stored in the original sealed packing.

### Packaging

- 5 kg plastic pail

## 3026 İzoseal

### Crystalline Waterproofing Mortar



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Grey Powder	
Shelf life	12 months when stored in the original sealed packaging.	
<b>Application Data</b>		
Application Temperature	(+5°C) - (+35°C)	
Mixing Ratio	7 - 7.5 litres water/25 kg powder (for roller application) 12 - 12.5 litres water/25 kg powder (power spray application)	
Pot Life	40 minutes	
Consumption	2 kg/m² for 2 coats	
Waiting Time Between the Coats	3 - 6 hours	
Time to Waterproof	7 days	
<b>Performance Data</b>		
Density (EN 1015-6)	2100±100 kg/m³	
Impermeability to Water:	7 bar (Negative and positive side)	
Adhesion Strength (EN 1542)	≥ 1.00 N/mm²	
Adhesion Strength After Cycling Without De-icing Salts Impact (EN 13687-3/ EN 1542)	≥ 1.00 N/mm²	
Adhesion Strength After Heat Ageing (EN 1062-11/EN 1542)	≥ 1.00 N/mm²	
Permeability to Water-Vapour (EN ISO 7783-2)	Class I ; Sd <5 (Sd: Equivalent air thickness)	
Capillary Water Absorption (EN ISO 1062-3)	< 0.1 kg/m²h <sup>0.5</sup>	
Dangerous Substances	See SDS.	
Reaction to Fire	A1	

#### Description

One component, capillary effect, cementitious waterproofing compound applicable from both inside (negative) and outside (positive) directions, for interior and exterior concrete and masonry structural elements.

#### Fields of Application

In waterproofing of all structurally sound concrete, either from negative or positive side on;

- Basements.
- Foundations and basement retaining walls.
- Swimming pools and reservoirs.
- Sewage and water treatment plants.
- Tunnels, channels and bridges.
- Elevator shaft basements.
- Wet areas like bathrooms, WC etc.
- Underground garages and warehouses.

#### Properties

- Penetrates deeply and seals concrete's capillary tracts and shrinkage cracks (up to 0.4 mm.) thank to crystals it forms.
- Can be applied from either the positive or negative side by masonry brush or appropriate power spray equipment.
- Completely effective against high hydrostatic pressure.
- Easy to apply, labor-cost effective.
- Does not require protection during backfilling, placement of steel or wire mesh, and other common procedures.
- Can be applied to moist or green concrete.
- Protects embedded steel (reinforcing steel and wire mesh).
- Approved to be used in contact with potable water tanks.

#### Preparation of Substrates

- Concrete substrates to be applied on must be clean, sound and have an open capillary system.

Remove loose parts, dust, dirt, grease, soil etc. which may cause poor adhesion and may prevent penetration of product by high pressure water jetting, wet sandblasting or wire brushing.

- The iron and wooden wedges on the surface should be removed and active water leaks and gaps should be filled with İzostop or İzostop Rapid.
- Corners should be rounded with Tamirart S40.
- Surfaces must be carefully prewatered prior to the application. The concrete surface must be damp but not wet.

#### Application

- Pour 25 kg of powder slowly into 7 - 7.5 l clean water for brush application and into 12 - 12.5 l for spray application, then mix up until no lumps remain.
- During the application, to store consistency stir mortar frequently. If the mortar starts to set, do not add more water, simply re-stir to restore workability.
- Apply the prepared mortar in two coats by masonry brush or power spray equipment. Apply the second coat perpendicular to the first coat, while it is still "green".
- The treated areas should be kept damp for a period of 5 days and must be protected against direct sun, wind and frost, by covering with polyethylene sheeting or similar.

#### Post-Application Protection & Suggestions

- The product should be used within the 40 minutes.
- Unfavourable climatic conditions (high temperature, low humidity, wind etc.) can reduce this time to just a few minutes. Dispose mortars of which pot life is expired.
- Product should be used within shelf life. Do not use the product of which shelf life is expired.

- Clean tools and hands with water.
- Protect the surface from direct sunlight, rain, freezing and wind for the first 24 hours after application.
- If İzoseal applied surface will be exposed to sunlight or traffic; surface should be covered with a protective coating material such as ceramic, screed.
- İzoseal gains mechanical resistance after 2 days and time to waterproof is 7 days. After applying İzoseal wait at least 7 days for curing in favourable climatic conditions before laying ceramic tiles.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin.
- For further information refer to the safety data sheet.

#### Storage

- Storage conditions should be dry and moisture-free, between 5 °C and 35 °C, away from direct sunlight.
- Protect from water, frost and severe weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is 12 months when stored in the original sealed packing.

#### Packaging

- 25 kg multi-ply paper bags.

## 3031 İzoseal 2K

### Two Component Crystalline Waterproofing Mortar



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	1st component: Grey powder; 2nd component: White liquid.	
Shelf life	12 months when stored in the original sealed packaging.	
<b>Application Data</b>		
Application Temperature	(+5°C) - (+35°C)	
Mixing Ratio	3 lt liquid / 5-6 lt water / 25 kg powder	
Mixing	-3 mins. with max. 500 rpm mixer	
Pot Life	-2 hours	
Consumption (per 1 mm thickness)	For humidity: 0.70 kg/m² For Non-Pressurized Water: 1.00 kg/m² For Pressurized Water: 1.35 kg/m²	
Waiting Time Between the Coats	3 - 6 hours	
Time to Waterproof	7 days	
<b>Performance Data</b>		
Density (EN 1015-6)	1850±100 kg/m³	
Impermeability to Water:	4 bar (negative) 7 bar (positive)	
Adhesion Strength (EN 1542)	≥ 1.00 N/mm²	
Adhesion Strength After Cycling Without De-icing Salts Impact (EN 13687-3/ EN 1542)	≥ 1.00 N/mm²	
Adhesion Strength After Heat Ageing (EN 1062-11/EN 1542)	≥ 1.00 N/mm²	
Permeability to Water-Vapour (EN ISO 7783-2)	Class I ; Sd <5 m	
Capillary Water Absorption (EN ISO 1062-3)	< 0.1 kg/m²h <sup>0.5</sup>	
Heat Resistance	(-30°C) - (+80°C)	
Dangerous Substances	See SDS.	
Reaction to Fire	European classification Bs1d0	

#### Description

Crystalline waterproofing material consisting of emulsion polymer based liquid and cement based powder components that contain chemical additives to increase water impermeability and workability, which is applicable from both negative and positive directions of interior and exterior concrete and masonry structural elements.

#### Fields of Application

- For interior and exterior areas, in vertical and horizontal directions,
- Waterproofing of;
  - Bathrooms, showers,
  - Water basins,
  - Foundations, retaining walls, basement walls,
  - Tunnels,
  - Elevator shaft basements,
  - Brine pit,
  - Fishponds,
  - Concrete, plaster and screed surfaces.

#### Properties

- Resistant against both negative and positive water pressure.
- Excellent bonding on all concrete and masonry.
- Non-corrosive for steel and construction elements.
- Applicable both on horizontal and vertical surfaces.
- Prevents carbonation in concrete.
- Resistant to freeze-thaw.
- Easy to apply either by brush, roller or trowel.

#### Preparation of Substrates

- The substrate must be dry, clean and sound.
- The substrate must be free of dust, loose parts, paint, wax, oils, rust and traces of gypsum.
- Loose parts, dust, dirt, oil, soil, etc. on the surface preventing adhesion and penetration to concrete should be thoroughly cleaned and pores should be opened with a water jet, sandblasting or wire brush.
- Active water leakages should be repaired with İzostop or İzostop Rapid.
- Corners and joints should be smoothed with waterproofing tapes (Kalekim Pah Bandı) or Tamirart S40.

- Surfaces must be carefully soaked prior to the application. The concrete surface must be damp but not wet.
- The substrate should be protected from sunlight, precipitation and dust for 1 day and application should not be done under direct sunlight.

#### Application

- Pour 3 liters of liquid component and 5.0-6.0 l of water into a suitable clean container. Then slowly add 25 kg powder component and mix with a low speed mixer to obtain a homogenous lump free mix. Mixing with max 500 rpm. mixer is recommended.
- Allow the mortar to stand for 5 minutes to mature. After remixing for 30 seconds, the paste is ready for application.
- Apply 2-3 layers of mortar with a brush, roller or trowel. Direction of the application should be perpendicular to the previous one for each layer.
- Wait for at least 3 hours in between the application of each layer depending on the temperature. For waiting durations more than 12 hours, slightly dampen the surface. 3 mm of total thickness will be enough.
- After application, the surface should be moist for 5 days and drying should be prevented. During this period, the surface should be protected from unfavorable weather conditions such as direct sunlight, wind, frost.

#### Post-Application Protection & Suggestions

- Fresh mortar should be used within 2 hours.
- Unfavourable climatic conditions (high temperature, low humidity, wind etc.) can reduce this time to just a few minutes. Dispose mortars of which pot life is expired.
- Hands and application tools should be washed with water after application.

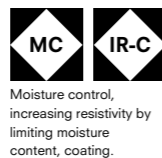
- After the applications that are done in external areas, surfaces should be protected from direct sunlight, rain, frost and wind for at least 1 day.
- If the area of application will be exposed to direct sunlight or traffic, İzoseal 2K applied surfaces should be covered with a protective coating material such as ceramic, screeds, etc.
- After applying İzoseal 2K, wait at least 7 days for curing in favourable climatic conditions before covering or taking into operation.
- Consumption values in the technical table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin.
- For further information refer to the safety data sheet.

#### Storage

- Liquid component: Store in temperatures from +5 °C to +23 °C in original sealed packing and keep the out of direct sunlight.
- Powder component: Should be kept dry and cool at between +5 °C and +35 °C in damp free conditions avoiding direct sunlight. Do not stack more than 10 bags on top of each other.
- Should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months under above mentioned storage conditions.

#### Packaging

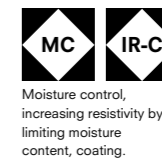
- Powder component: 25 kg multi-ply paper bags,
- Liquid component: 3 lt drums.
- Set of 28 kg.



Moisture control, increasing resistivity by limiting moisture content, coating.



Certificates of Quality  
EN 1504-2 Class MC, IR-C  
Hacettepe University Doping Control Center Approval Report according to BS 6920 (suitable for use in contact with water intended for human consumption).



Moisture control, increasing resistivity by limiting moisture content, coating.



It is certified according to EN 1504-2.

# 3032 İzoseal 2K+

## Two Component Crystalline Waterproofing Mortar



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	1st component: Grey powder; 2nd component: White liquid.	
Shelf life	12 months when stored in the original sealed packaging.	
<b>Application Data</b>		
Application Temperature	(+5°C) - (+35°C)	
Mixing Ratio	10 lt liquid / 25 kg powder	
Mixing	~3 mins. with max. 500 rpm mixer	
Pot Life	45 minutes	
Consumption (per 1 mm thickness)	1.4 kg/m <sup>2</sup>	
Waiting Time Between the Coats	3 - 6 hours	
Time to Waterproof	7 days	
<b>Performance Data</b>		
Density (EN 1015-6)	1550±100 kg/m <sup>3</sup>	
Impermeability to Water:	≥ 1 bar (negative) ≥ 7 bar (positive)	
Adhesion Strength (EN 14891)	≥ 1.00 N/mm <sup>2</sup>	
Adhesion Strength (EN 1504-2)	≥ 0.80 N/mm <sup>2</sup>	
Permeability to Water-Vapour (EN ISO 7783)	Class I ; Sd <5 m	
Capillary Water Absorption (EN ISO 1062-3)	< 0.1 kg/m <sup>2</sup> h <sup>0.5</sup>	
Crack Bridging (EN 1062-7) (21 °C)	> 0.75 mm (Class A3)	
Crack Bridging with Mesh (EN 1062-7) (21 °C)	> 2.50 mm	
Heat Resistance	(-30°C) - (+80°C)	
Dangerous Substances	See SDS.	
Reaction to Fire	European classification Cs1d0	

### Description

Crystalline waterproofing material consisting of emulsion polymer based liquid and cement based powder components that contain chemical additives to increase water impermeability and workability, which is applicable from both negative and positive directions of interior and exterior concrete and masonry structural elements.

### Fields of Application

- For interior and exterior areas, in vertical and horizontal directions,
- Waterproofing of;
  - Bathrooms, showers,
  - Water basins,
  - Foundations, retaining walls, basement walls,
  - Tunnels,
  - Elevator shaft basements,
  - Brine pit,
  - Fishponds,
  - Turkish baths, SPA's,
  - Concrete, plaster and screed surfaces.

### Properties

- Resistant against both negative and positive water pressure.
- Approved to be used in contact with potable water tanks.
- Excellent bonding on all concrete and masonry.
- Non-corrosive for steel and construction elements.
- Applicable both on horizontal and vertical surfaces.
- Prevents carbonation in concrete.
- Resistant to freeze-thaw.
- Non-cracking
- Easy to apply either by brush, roller or trowel.

### Preparation of Substrates

- The substrate must be dry, clean and sound.
- The substrate must be free of dust, loose parts, paint, wax, oils, rust and traces of gypsum.
- Loose parts, dust, dirt, oil, soil, etc. on the surface preventing adhesion and penetration to concrete should be thoroughly cleaned and pores should be opened with a water jet, sandblasting or wire brush.
- Active water leakages should be repaired with İzostop or İzostop Rapid.

- Corners and joints should be smoothed with waterproofing tapes (Kalekim Pah Bandı) or Tamirart S40.
- Surfaces must be carefully soaked prior to the application. The concrete surface must be damp but not wet.
- The substrate should be protected from sunlight, precipitation and dust for 1 day and application should not be done under direct sunlight.

### Application

- Pour 10 liters of liquid component into a suitable clean container. Then slowly add 25 kg powder component and mix with a low speed mixer to obtain a homogenous lump free mix. Mixing with a max 500 rpm mixer is recommended.
- Allow the mortar to stand for 5 minutes to mature. After remixing for 30 seconds, the paste is ready for application.
- Apply 2-3 layers of mortar with brush, roller or trowel. Direction of the application should be perpendicular to the previous one for each layer.
- Wait for at least 3 hours in between the application of each layer depending on the temperature. For waiting durations with more than 12 hours, slightly dampen the surface. 2-3 mm of total thickness will be enough.
- Wet film thickness should not exceed 1.5 mm in one layer.
- After application, the surface should be moist for 5 days and drying should be prevented. During this period, the surface should be protected from unfavorable weather conditions such as direct sunlight, wind and frost.

### Post-Application Protection & Suggestions

- Fresh mortar should be used within 2 hours. Unfavorable climatic conditions (high temperature, low humidity, wind etc.) can reduce this time to just

a few minutes. Dispose mortars of which pot life is expired.

- Hands and application tools should be washed with water after application.
- After the applications that are done in external areas, surfaces should be protected from direct sunlight, rain, frost and wind for at least 1 day.
- If the area of application will be exposed to direct sunlight or traffic, İzoseal 2K+ applied surfaces should be covered with a protective coating material such as ceramic, screeds, etc.
- İzoseal 2K+ applied areas gain mechanical resistance within 2 days, water impermeability within 7 days and final strength within 14 days.
- Consumption values in the technical table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin.
- For further information refer to the safety data sheet.

### Storage

- Liquid component: Store in temperatures between +5°C and +23°C in original sealed packing and keep it out of direct sunlight.
- Powder component: Should be kept dry and cool at between +5°C and +35°C in damp free conditions avoiding direct sunlight. Do not stack more than 10 bags on top of each other.
- Should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months under above mentioned storage conditions.

### Packaging

- Powder component: 25 kg multi-ply paper bags,
- Liquid component: 10 lt drums.
- Set of 35 kg.



Moisture control,  
increasing resistivity by  
limiting moisture  
content, coating.



It is certified according to EN 1504-2.  
Reported suitable for drinking water contact according to BS 6920 Standard.

# 3023 İzolatex

## Semi-Flexible Waterproofing Mortar



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	1st component: Grey powder 2nd component: White liquid	
Shelf Life (Powder and liquid)	12 months when stored in the original sealed packaging.	
<b>Application Data</b>		
Application Temperature	(+5°C) - (+35°C)	
Mixing Ratio	5 lt liquid / 20 kg powder	
Mixing	~3 mins. with max. 500 rpm mixer	
Pot Life	2 hour	
Consumption	1.7 kg/m <sup>2</sup> (per 1 mm thickness)	
Waiting Time Between the Coats	5 - 6 hours	
Waiting Time / Overcoatibility	Min. 3 days	
Time to Waterproof	7 days	
<b>Performance Data</b>		
Density (EN 1015-6)	1900±100 kg/m <sup>3</sup>	
Impermeability to Water (for 3mm thickness):	2 bar (positive)	
Adhesion Strength (EN 1542)	≥ 1.00 N/mm <sup>2</sup>	
Adhesion Strength After Cycling Without De-icing Salts Impact (EN 13687-3/ EN 1542)	≥ 1.00 N/mm <sup>2</sup>	
Adhesion Strength After Heat Ageing (EN 1062-11/EN 1542)	≥ 1.00 N/mm <sup>2</sup>	
Permeability to Water-Vapour (EN ISO 7783-2)	Class I ; Sd <5 (Sd: Equivalent air thickness)	
Capillary Water Absorption (EN ISO 1062-3)	< 0.1 kg/m <sup>2</sup> h <sup>0.5</sup>	
Heat Resistance	(-30°C) - (+80°C)	
Dangerous Substances	See SDS.	
Reaction to Fire	European classification Bs1d0	

### Description

Semi-flexible waterproofing and concrete protection mortar consisting of emulsion polymer-based liquid component and cement-based powder component containing chemical additives that increase water impermeability and workability for interior and exteriors.

### Fields of Application

- Waterproofing of bathrooms, showers, balconies, terraces before laying ceramic tiles.
- Waterproofing of swimming pools, Turkish baths before laying ceramic tiles.
- Can be applied on surfaces such as concrete, plaster, screed.

### Properties

- Appropriate for waterproofing before covering with ceramic or screed.
- Approved to be used in contact with potable water tanks.
- Excellent bonding on all concrete and masonry.
- Non-corrosive for steel and construction elements.
- Applicable both on horizontal and vertical surfaces.
- Prevents carbonation in concrete.
- Resistant to freeze-thaw.
- Easy to apply either by brush, roller or trowel.

### Preparation of Substrates

- The substrates should be dry, clean and solid.
- The surfaces to be coated should be free of adhesion preventive foreign substances such as dust, dirt, mould oil, paint etc.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.
- It should not be applied under direct sunlight and the applied surface should be protected from rain within 24 hours.
- Use Tamirart series repair mortars in case of any loose and uneven substrates to get a sound and flat surface.
- Corners should be rounded with Tamirart S40.

- In cases where one could not round the corners with structural repair mortar, it is recommended to select the most suitable type of Kalekim Waterproofing Tape at the joints such as horizontal - vertical joints, parapet corners, luminaires, chimney bottoms. This step should be applied after the primer.
- The surface should be primed with Kalekim Astar(Primer) depending on the absorpency of the substrate before application.

### Application

- Pour 5 liters of liquid component into a suitable clean container. Then slowly add 20 kg of powder component and mix with a low speed mixer to obtain a homogenous lump free mix. Mixing with max 500 rpm. mixer is recommended.
- Allow the mortar to stand for 5 minutes to mature. After remixing for 1-2 minutes, the paste is ready for application.
- Apply a thin layer of İzolatex with a brush, roller or trowel, then after 5 - 6 hours apply a second coat, to have a final thickness of approximately 3 mm.
- Kalekim Waterproofing Tape should be applied to the corners and joints at the application area.

### Post-Application Protection & Suggestions

- The product should be used within 2 hours. Unfavorable climatic conditions (high temperature, low humidity, wind etc.) can reduce this time to just a few minutes. Dispose mortars of which pot life is expired.
- Product should be used within shelf life. Do not use the product of which shelf life is expired.
- Clean tools and hands with water, surfaces with a damp cloth.

- Protect the surface from direct sunlight, rain, freezing and wind within the first 24 hours after application
- İzolatex applied surface should be covered with a protective coating material such as screed and ceramic.
- After applying İzolatex, wait at least 7 days for curing in favourable climatic conditions before laying ceramic tiles.
- When İzolatex is used for waterproofing of drinking water tanks, do not fill the tank before waiting 28 days for curing. Before using the tank, washing it down with hot water several times is recommended.
- During the coating process, the insulation material should not be mechanically damaged.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin.
- For further information refer to the safety data sheet.

### Storage

- Liquid component: Store at between +5°C and +23°C in original sealed packaging avoiding direct sunlight.
- Powder component: Should be kept dry and cool at between +5°C and +35°C in damp free conditions avoiding direct sunlight. Do not stack more than 10 bags on top of each other.
- Should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months under above mentioned storage conditions

### Packaging

- Powder component: 20 kg multi-ply paper bags.
- Liquid component: 5 lt drums
- Set of 25 kg



Moisture control,  
increasing resistivity by  
limiting moisture  
content, coating.



Quality Certificates  
EN 1504-2 Class MC, IR-C  
Hacettepe University Doping Control Center Approval Report according to BS 6920 (suitable for use in contact with water intended for human consumption)

# 3024 İzolatex Plus

## Highly Flexible Waterproofing Mortar



**Description**

Highly flexible waterproofing mortar composed of emulsion polymer-based liquid component and cementitious powder component containing additives that improve waterproofing and workability, which is resistant to salts and suitable for interior and exterior applications.

**Fields of Application**

- Swimming pools, water tanks, basins, pipes etc.
- Bathrooms, showers, WC, like wet areas before the tiling.
- Balconies and terraces before laying ceramic tiles.
- Underground concrete elements like foundations, retaining walls and basement walls.
- Places subject to deformation, pedestrian and traffic load.
- Concrete basins subject to sea water and de-icing salts.
- Can be applied on surfaces such as concrete, plaster, screed.

**Properties**

- Appropriate for waterproofing before tiling or screed.
- Approved to be used in contact with potable water tanks.
- Excellent bonding on all concrete and masonry.
- Highly flexible.
- Non-corrosive for steel and construction elements.
- Applicable both on horizontal and vertical surfaces.
- Prevents carbonation in concrete.
- Resistant to freeze-thaw.
- Highly resistant against chloride ions.
- Prevents concrete against de-icing salts like calcium and sodium chloride, seawater and carbon dioxide gas.
- Easy to apply either by brush, roller or trowel.

**Preparation of Substrates**

- The substrates should be dry, clean and solid.
- The surfaces to be coated should be free of adhesion preventive foreign substances such as dust, dirt, mould oil, paint etc.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.
- It should not be applied under direct sunlight and the applied surface should be protected from rain within 24 hours.
- Use Tamirart series repair mortars in case of any loose and uneven substrates to get a sound and flat surface.
- Corners should be rounded with Tamirart S40.
- In cases where one could not round the corners with structural repair mortar, it is recommended to select the most suitable type of Kalekim Waterproofing Tape at the joints such as horizontal - vertical joints, parapet corners, luminaires, chimney bottoms. This step should be applied after the primer.

Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	1st component: Grey powder 2nd component: White liquid
Shelf Life (Powder and liquid)	12 months when stored in the original sealed packaging.
<b>Application Data</b>	
Application Temperature	(+5°C) - (+35°C)
Mixing Ratio	10 lt liquid / 20 kg powder
Mixing	~3 mins. with max. 500 rpm mixer
Pot Life	5 hour
Consumption	1.7 kg/m <sup>2</sup> (per 1 mm thickness)
Waiting Time Between the Coats	5 - 6 hours
Waiting Time / Overcoatibility	Min. 3 days
Time to Waterproof	7 days
<b>Performance Data</b>	
Density	1580±100 kg/m <sup>3</sup>
Waterproofing Capacity (for 3 mm thickness)	7 bar (positive)
Adhesion Strength (EN 14891)	≥ 0.50 N/mm <sup>2</sup>
Adhesion Strength (EN 1542)	≥ 1.00 N/mm <sup>2</sup>
Adhesion Strength After Water Immersion (EN 14891)	≥ 0.50 N/mm <sup>2</sup>
Adhesion Strength After Freeze-Thaw Cycles (EN 14891)	≥ 0.50 N/mm <sup>2</sup>
Adhesion Strength After Cycling Without De-icing Salts Impact (EN 13687-3/EN 1542)	≥ 1 N/mm <sup>2</sup>
Adhesion Strength After Heat Ageing (EN 14891)	≥ 0.50 N/mm <sup>2</sup>
Adhesion Strength After Heat Ageing (EN 1062-11/EN 1542)	≥ 1.00 N/mm <sup>2</sup>
Adhesion Strength After Contact With Lime Water (EN 14891)	≥ 0.50 N/mm <sup>2</sup>
Adhesion Strength After Contact With Chlorinated Water (EN 14891)	≥ 0.50 N/mm <sup>2</sup>
Crack Bridging (23°C,%50 RH) (EN 14891)	≥ 0.75 mm
Crack Bridging (-20°C,%50 RH) (EN 14891)	≥ 0.75 mm
Chloride Diffusion (ASTM C1202)	≤ 200 Coulomb (Class: Very low permeability)
Carbon Dioxide Permeability (EN 1062-6)	Sd >50 m (Sd: Equivalent air thickness)
Permeability to Water-Vapor (EN ISO 7783-2)	Class I; Sd <5 (Sd: Equivalent air thickness)
Capillary Water Absorption (EN ISO 1062-3)	< 0.1 kg/m <sup>2</sup> h <sup>0.5</sup>
Heat Resistance	(-40°C) - (+80°C)
Dangerous Substances	See SDS.
Reaction to Fire	European classification C-s1d0

- The surface should be primed with Kalekim Astar(Primer) depending on the absorbency of the substrate before application.

**Application**

- Pour 10 liters of liquid component into a suitable clean container.
- Then slowly add 20 kg powder component and mix with a low speed mixer to obtain a homogenous lump free mix.
- Allow the mortar to stand for 5 minutes to mature. After remixing for 1-2 minutes, the paste is ready for application.
- Apply a thin layer of İzolatex Plus with brush, roller or trowel, then after 5 - 6 hours apply a second coat, to have a final thickness of approximately 3 mm. Layers should be applied perpendicular to each other.
- Kalekim Waterproofing Tape should be applied to the corners and joints at the application area.

**Post-Application Protection & Suggestions**

- The product should be used within 5 hours. Unfavourable climatic conditions (high temperature, low humidity, wind etc.) can reduce this time to just a few minutes. Dispose mortars of which pot life is expired.
- İzolatex Plus applied surface should be covered with protective coating material such as screed and ceramic.
- During the coating process, the insulation material should not be mechanically damaged.
- After applying İzolatex Plus, wait at least 7 days for curing in favourable climatic conditions before laying ceramic tiles.

- When İzolatex Plus is used for waterproofing of drinking water tanks, do not fill the tank before waiting 28 days for curing. Before using the tank, washing it down with hot water several times is recommended.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin.
- For further information refer to the safety data sheet.

**Storage**

- Liquid component: Store at between +5°C and +23°C in original sealed packaging avoiding direct sunlight.
- Powder component: Should be kept dry and cool at between +5°C and +35°C in damp free conditions avoiding direct sunlight. Do not stack more than 10 bags on top of each other.
- Should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months under above mentioned storage conditions

**Packaging**

- Powder component: 20 kg multi-ply paper bags.
- Liquid component: 10 lt drums.
- Set of 30 kg



Protection against ingress, moisture control, increasing resistivity by limiting moisture content, coating.



TS EN 14891 ve TS EN 1504-2'den belgelidir.  
Poz No: 15.270.1005 - 15.270.1006 - 15.270.1007 - 15.270.1008  
Haceteppe University Doping Control Center Approval Report according to BS 6920 (suitable for use in contact with water intended for human consumption)

# 3027 İzolatex UV

## UV Resistant Waterproofing Mortar



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	1st component: White powder 2nd component: White liquid
Shelf Life (Powder and liquid)	12 months when stored in the original sealed packaging.
<b>Application Data</b>	
Application Temperature	(+5°C) - (+35°C)
Mixing Ratio	8 lt liquid / 25 kg powder
Mixing	~3 mins. with max. 500 rpm mixer
Pot Life	3 hour
Consumption	1.7 kg/m <sup>2</sup> (per 1 mm thickness)
Waiting Time Between the Coats	5 - 6 hours
Waiting Time / Overcoatibility	Min. 3 days
Time to Waterproof	7 days
<b>Performance Data</b>	
Density (EN 1015-6)	1700±100 kg/m <sup>3</sup>
Impermeability to Water (for 3mm thickness):	7 bar (positive)
Adhesion Strength (EN 1542)	≥ 1.00 N/mm <sup>2</sup>
Adhesion Strength After Freeze-Thaw Cycles (EN 1542)	≥ 1.00 N/mm <sup>2</sup>
Adhesion Strength After Water Immersion (EN 1542)	≥ 1.00 N/mm <sup>2</sup>
Resistance to Accelerated Ageing (EN 1062-11)	No visual change. After 2000 hours UV radiation and humidity
Adhesion Strength After Contact With Lime Water (EN 14891)	≥ 0.50 N/mm <sup>2</sup>
Adhesion Strength After Contact With Chlorinated Water (EN 14891)	≥ 0.50 N/mm <sup>2</sup>

**Description**

Two component, highly flexible, UV resistant waterproofing mortar with effective resistance against salt and carbon dioxide used for interior and exterior concrete and masonry structural elements, composed of emulsion polymer based liquid component and cement based white powder, containing chemical additives that increase water impermeability and workability.

**Fields of Application**

- Waterproofing of balconies, terraces and roofs subject to light pedestrian and load traffic without additional covering.
- Waterproofing of swimming pools, bathrooms, showers, hammams before laying ceramic tiles.
- Applied on surfaces such as concrete, plaster, screed.

**Properties**

- Resistant to UV.
- Excellent bonding on all concrete and masonry.
- Approved to be used in contact with potable water tanks.
- Resistant to chemicals like sodium sulphate, sodium chloride and sodium hydroxide.
- Protects against de-icing salts like calcium and sodium chloride, sea water, carbon dioxide gas.
- Prevents carbonation in concrete.
- Applicable both on horizontal and vertical surfaces.
- Resistant to freeze-thaw.
- Easy to apply either by brush, roller or trowel.

**Preparation of Substrates**

- The substrates should be dry, clean and solid.
- The surfaces to be coated should be free of adhesion preventive foreign substances such as dust, dirt, mould oil, paint etc.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.
- It should not be applied under direct sunlight and the applied surface should be protected from rain within 24 hours.

- Use Tamirart series repair mortars in case of any loose and uneven substrates to get a sound and flat surface.
- Corners should be rounded with Tamirart S40.
- In cases where one could not round the corners with structural repair mortar, it is recommended to select the most suitable type of Kalekim Waterproofing Tape at the joints such as horizontal - vertical joints, parapet corners, luminaires, chimney bottoms. This step should be applied after the primer.
- The surface should be primed with Kalekim Astar (Primer) depending on the absorbency of the substrate before application.

**Application**

- Pour 8 liters of liquid component into a suitable clean container.
- Then slowly add 25 kg powder component and mix with a low speed mixer to obtain a homogenous lump free mix. Mixing with max 500 rpm. mixer is recommended.
- Allow the mortar to stand for 5 minutes to mature. After remixing for 1-2 minutes, the paste is ready for application.
- Apply a thin layer of İzolatex UV with brush, roller or trowel, then after 5 - 6 hours apply a second coat to have a final thickness of approximately 3 mm. Layers should be applied perpendicular to each other.
- Kalekim Waterproofing Tape should be applied to the corners and joints at the application area.
- Post-Application Protection & Suggestions**
- İzolatex UV should be used within 3 hours. Unfavourable climatic conditions (high temperature, low humidity, wind etc.) can reduce this time to just a few minutes. Dispose mortars of which pot life is expired.
- Product should be used within shelf life. Do not use the product of which shelf life is expired.

- Clean tools and hands with water.
- Protect the surface from direct sunlight, rain, freezing and wind for the first 24 hours after application.
- İzolatex UV applied surface should be coated with a flooring compound or tiles.
- After applying İzolatex UV, wait at least 7 days for curing in favourable climatic conditions before laying ceramic tiles.
- When İzolatex UV is used for waterproofing of drinking water tanks, do not fill the tank before waiting 28 days for curing. Before using the tank, washing it down with hot water several times is recommended.
- During the coating process, the insulation material should not be mechanically damaged.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin.
- For further information refer to the safety data sheet.

**Storage**

- Liquid component: Store in temperatures from +5°C to +23°C in original sealed packing and keep out of direct sunlight.
- Powder component: Should be kept dry and cool at between +5°C and +35°C in damp free conditions avoiding direct sunlight. Do not stack more than 10 bags on top of each other.
- Should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months under above mentioned storage conditions.

**Packaging**

- Powder component: 25 kg multi-ply paper bags.
- Liquid component: 8 lt drums.
- Set of 33 kg



Protection against ingress, moisture control, increasing resistivity by limiting moisture content, coating.



TS EN 14891 ve TS EN 1504-2'den belgelidir.  
Poz No: 15.270.1005 - 15.270.1006 - 15.270.1007 - 15.270.1008  
Haceteppe University Doping Control Center Approval Report according to BS 6920 (suitable for use in contact with water intended for human consumption)

## 3022 İzolatex 1K

One-Component Cementitious Mortar for Flexible Waterproofing & Concrete Protection



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Grey colour cement modified powder	
Shelf Life (Powder and liquid)	12 months when stored in the original sealed packaging.	
<b>Application Data</b>		
Application and Surface Temperature Range	(+5°C) - (+35°C)	
Mixing Ratio	5.5 – 6.3 lt water per 20 kg bag (by brush) 3.2 – 4.0 lt water per 20 kg bag (by trowel)	
Pot Life	≥ 120 min. at +20 °C	
Consumption	0.85 – 1.00 kg/m <sup>2</sup> /mm	
Waiting Time / Overcoatibility	Min. 3 days	
Time to Waterproof	7 days	
<b>Performance Data</b>		
Fresh Mortar Density	1.35 ± 0.1 g/cm <sup>3</sup>	
Initial Tensile Adhesion Strength and After Water Contact, Heat Aging, Freeze-Thaw Cycles (EN 14891)	≥ 1 N/mm <sup>2</sup>	
Tensile Adhesion Strength (EN 1542)	≥ 2 N/mm <sup>2</sup>	
Freeze Thaw De-Icing Salt Resistance (EN 13687-3)	≥ 1 N/mm <sup>2</sup>	
Water Penetration under Pressure (EN 14891)	7 bar (positive)	
Crack Bridging Ability (EN 14891)	≥ 0.75 mm (+23 °C) ≥ 0.75 mm (-5 °C)	



### Description

One-component, crack-bridging, flexible mortar, based on cement modified with waterproofing and workability improving additives used for interior and exterior applications.

### Fields of Application

- Bathrooms, showers, WC, Turkish baths, spa-like wet areas before the tiling.
- Balconies and terraces before laying ceramic tiles.
- Swimming pools, water tanks, basins, pipes etc.
- Internal wall floors against leakage and surface water.
- External wall surfaces to be backfilled in the ground.
- It is applied on concrete surfaces which must be protected against sea water salts.

### Properties

- Thanks to its special one-component formulation, it is ready for application by mixing with water only.
- Provides advantages in transportation and stock.
- Flexible waterproofing and good crack-bridging ability.
- It is the ideal waterproofing material before tiling or screed jobs.
- Good sag resistance and easy to apply, even on vertical surfaces.
- Can be applied on damp substrates.
- Prevents carbonation in concrete.
- Resistant to freeze-thaw.
- Highly resistant against chloride ions.
- Easy to apply either by brush, roller or trowel.

### Preparation of Substrates

- The substrates should be dry, clean and solid.
- The surfaces to be coated should be free of adhesion preventive foreign substances such as dust, dirt, mould oil, paint etc.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.

- Use Tamirart series repair mortars in case of any loose and uneven substrates to get a sound and flat surface.
- Corners should be rounded with Tamirart S40.
- In cases where one could not round the corners with structural repair mortar, it is recommended to select the most suitable type of Kalekim Waterproofing Tape at the joints such as horizontal - vertical joints, parapet corners, luminaires, chimney bottoms. This step should be applied after the primer.
- Before application of İzolatex 1K, the surface should be primed with Kalekim Astar (Primer).

### Application

- Pour 20 kg of İzolatex 1K in the right quantity of clean water slowly according to the respective application method and mix for 3-4 minutes until homogenous lump free mortar is obtained.
- Do not add any additives other than those stated in the application instructions.
- During the application, the mortar should be mixed frequently to maintain its consistency. In case the consistency of the mortar increases, water should not be added. The mortar should be mixed to ensure workability again.
- Ready to use mortar should be applied in at least 2 layers, to a total thickness of at least 3 mm by brush, trowel or roller.
- Waiting time between the applications of two layers is about 4 - 6 hours depending on the temperature.
- To obtain the recommended long term technical performance of the product, after the application of İzolatex 1K, it should be covered and protected with a screed, ceramic, tile etc.
- If İzolatex 1K will be covered with tile, a high performance, flexible type of Kalekim Tile Adhesive

should be used at least with C2 S1 / S2 class in accordance with EN 12004 standard.

### Post-Application Protection & Suggestions

- During the covering process, the waterproofing material should not be damaged by mechanical effects and the waterproofing material should be protected during the curing.
- Fresh applied surfaces should be protected against direct sunlight, strong airflow, high air temperature (over + 35 °C), rain and frost during the first days.
- The product should be used within the pot life. Products with expired pot life should not be used.
- It should not be applied at very high temperatures, under direct sunlight, in extremely windy, foggy, rainy, frost-risk weather conditions. Low temperature and high relative humidity can extend the drying time.
- It should not be applied in rainy weather and the applied surface should be protected from rain within 24 hours.
- Surface and ambient temperature should be between + 5 °C and + 35 °C during the application.
- See the Safety Data Sheet for more information.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Maximum 3 pallets should be stacked on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned storage conditions.

### Packaging

- 20 kg multi-ply paper bag.



It is certified according to TS EN 1504-2 and TS EN 14891. Reported suitable for drinking water contact according to METU BS 6920 Standard.

## 3025 Ultralastic

Ultra Flexible Waterproofing and Concrete Protection Mortar



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	1st component: Grey powder 2nd component: Pink liquid.	
Shelf Life (Powder and liquid)	12 months when stored in the original sealed packaging.	
<b>Application Data</b>		
Application Temperature	(+5°C) - (+35°C)	
Mixing Ratio	10 lt liquid / 15 kg powder	
Mixing	~2 mins. / 400-600 rpm	
Pot Life	45 minutes	
Consumption		
Areas Subject to Water at a Normal Level	2.4 kg/m <sup>2</sup> (1 layer)	
Wall Interfaces, Moisture-Proofing, Balconies and Terraces, Brick Surfaces	3.2 kg/m <sup>2</sup> (2 layer)	
Construction Walls	4.5 kg/m <sup>2</sup> (2 layer)	
Soil contacting concrete elements and foundations	6 kg/m <sup>2</sup> (2 layer)	
Waiting Time Between Coats	2 hours	
Ready to Use	16 hours	
<b>Performance Data</b>		
Density	1.5 kg/lt	
Impermeability to Water (for 3 mm thickness)	≥ 7 bar (positive after 6 hours)	
Adhesion Strength (EN 1542)	≥ 1 N/mm <sup>2</sup>	
Adhesion Strength After Cycling Without De-icing Salts Immersion (EN 13687-3/EN 1542)	≥ 0.8 N/mm <sup>2</sup>	
Adhesion Strength After Heat Ageing (EN 1062-11/EN 1542)	≥ 0.8 N/mm <sup>2</sup>	
Crack Bridging (EN 1062-7) (21 °C)	≥ 2.5 mm (A5)	
Chloride Diffusion (ASTM C1202)	≤ 200 Coulomb (Class: Very low permeability)	
Permeability to Water-Vapor (EN ISO 7783-2)	Class I ; Sd <5 (Sd: Equivalent air thickness)	
Capillary Water Absorption (EN ISO 1062-3)	< 0.1 kg/m <sup>2</sup> h <sup>0.5</sup>	
Heat Resistance	(-40°C) - (+80°C)	
Dangerous Substance	See SDS.	

### Description

Rapid curing, highly flexible and durable waterproofing and concrete protection mortar for interior and exterior applications, composed of emulsion polymer based liquid component and powder component including waterproofing, and workability improving mineral additives, and special elements.

### Fields of Application

- Waterproofing of;
  - o Sub-basements.
  - o Underground concrete elements like foundations, retaining walls, basement walls.
  - o The soil contacting areas of concrete elements.
  - o Places subject to deformation, pedestrian and load traffic.
  - o Old bituminous surfaces.
  - o Wall interfaces.
  - o Balconies and terraces.
  - o The areas subject to saline water.
  - o Concrete basins subject to sea water and de-icing salts.
  - o Permanently wet areas like swimming pools and water basins.
  - o Wet areas like bathrooms, showers.
  - o Concrete, plaster and screeds.
- Waterproofing under ceramic tiling.
- Waterproofing over old tiling.
- All places where quick installation is needed.

### Properties

- Resistant to ageing and UV light.
- It can be painted or covered with a covering material in a short period of time after application.
- Excellent bonding on all concrete and masonry
- Highly flexible.
- Non-corrosive for steel and construction elements.
- Resistant to rain within 2 hours, to pressurized water within 16 hours after application.
- Allows further application over the surface rapidly, paintable.
- Applicable both on horizontal and vertical surfaces.
- Prevents carbonation in concrete.
- Resistant to freeze-thaw.
- Highly resistant against chloride ions.
- Prevents concrete against de-icing salts like calcium and sodium chloride, seawater and carbon dioxide gas.
- Easy to apply either by brush, roller or trowel.

### Preparation of Substrates

- The substrates should be dry, clean and solid.
- The surfaces to be coated should be free of adhesive preventive foreign substances such as dust, dirt, mould oil, paint etc.

- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.
- It should not be applied under direct sunlight and the applied surface should be protected from rain within 24 hours.
- Use Tamirart series repair mortars in case of any loose and uneven substrates to get a sound and flat surface. If the surface is porous, the pores should be sealed by a thin layer of Ultralastic with a primer.
- Corners and joints should be smoothed with Tamirart S40.
- In cases where one could not round the corners with structural repair mortar, it is recommended to select the most suitable type of Kalekim Waterproofing Tape at the joints such as horizontal - vertical joints, parapet corners, luminaires, chimney bottoms. This step should be applied after the primer.
- The surface should be primed with Kalekim Astar (Primer) depending on the absorbency of the substrate before application.
- Pour 10 liters of liquid component into a suitable clean container. Then slowly add 15 kg. powder component and mix with a low speed of 400-600 rpm mixer to obtain a homogenous lump free mix for minimum 2 minutes.
- Application should be done in one or two layers depending on the situation of the area to be waterproofed. Max. 8 mm thickness is allowed at once. Second layer should be applied after 2 hours and in the perpendicular direction to the first one. Please refer to the consumption amounts indicated in the technical table.
- There must be 2 hours between applications of each layer depending on the temperature. Layers should be applied perpendicular to each other. Please see the technical table for recommended consumption amounts at different fields of usage.
- Corners and joints should be smoothed with Kalekim Waterproofing Tapes.

### Post-Application Protection & Suggestions

- Fresh mortar should be used within 45 minutes.
- Unfavourable climatic conditions (high temperature, low humidity, wind etc.) can reduce this time to just a few minutes. Dispose mortars of which pot life is expired.
- Hands and application tools should be washed with water after application.
- When Ultralastic is used for waterproofing of drinking water tanks, do not fill the tank before waiting 28 days for curing. Before using the tank, washing it down with hot water several times is recommended.
- Ultralastic applied area should not be taken into service until curing is finished (about 16 hours).
- Consumption values in the technical table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin.
- For further information refer to the safety data sheet.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in damp free conditions avoiding direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 24 months under above mentioned storage conditions.

### Packaging

- Powder component: 15 kg multi-ply paper bags
- Liquid component: 10 lt drums
- 25 kg set



Protection against ingress, moisture control, increasing resistivity by limiting moisture content, coating.

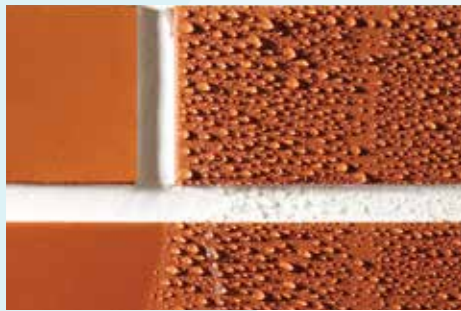


# 3351 Durex

## Impregnation Waterproofing and Surface Protection Material



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Yellow - Orange transparent liquid	
Shelf Life	12 months when stored in the original sealed packaging.	
<b>Application Data</b>		
Application Temperature Range	(+0°C) - (+35°C)	
Consumption	Approximately 20 - 50 g/m <sup>2</sup> (Depending on the porosity of the substrate)	
Minimum Drying Time	45 - 60 minutes	
Penetration	Very good	
<b>Performance Data</b>		
Density	1.0 gr/cm <sup>3</sup>	
Water Absorption	< 0.020 kg./m <sup>2</sup> h <sup>1/2</sup>	
Drying Rate Coefficient (EN 13579)	30% (Class I)	
Penetration Depth	< 10 mm (Class I)	
Water Absorption and Resistance to Alkali (EN 13580)	Water Absorption < 7.5%, Absorption ratio after exposure to alkali < 10%	
Dangerous Substances	See SDS.	



### Description

Silicone based concentrated impregnation and surface protection material, providing water impermeability without decreasing the water vapor permeability of the surface applied on and without giving any color or sheen to it.

### Fields of Application

- Impregnation of porous mineral surfaces such as concrete, lime-sand stone and brick where waterproofing is required.
- Protecting concrete surfaces against abrasion caused by water, salt, chlorine and alkali.
- Impregnation of surfaces coated with any kind of paint or plasters having relatively low water resistance.
- Priming of surface before application of the paints and plasters.

### Properties

- Penetrates into the substrate deeply.
- Protects concrete against water and chlorine absorption.
- Reduces concrete loss caused by de-icing salt attacks.
- High alkali resistance.
- Does not change the color and the gloss of the surface.
- Does not prevent the water vapor permeability of the surface applied on.
- Easy to apply with a brush, roller or spray gun.
- Extremely durable; not affected by severe weather conditions like UV, rain and freezing.

### Preparation of Substrates

- The substrates should be dry, clean and solid.
- The surfaces to be applied should be free of adhesion preventive foreign substances such as dust, dirt, mould oil, paint etc.

- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.

### Application

- Dilute with water at a ratio of 1/14 to use as a primer, at a ratio of 1/9 to use as a general purpose impregnation material and at a ratio of 1/3 to use for effective concrete protection. Durex should be added to water and mixed.
- Use diluted product on the day of dilution, i.e. only the amount of product to be used on the same day should be diluted.
- Apply 2 - 3 generous, wet-on-wet coats with a brush, roller or spray gun after diluting. Small building elements can be impregnated by immersion technique.
- If used for concrete protection, at least 2 coats should be applied to ensure that the surface is completely covered.
- The second layer should be applied while the surface is still wet, without leaving any waiting time between coats.

### Post-Application Protection & Suggestions

- It should not be applied under the sun and at temperatures below 0°C.
- The product should be used within pot life. Products with expired pot life must not be used.
- Keep packaging closed when the application is interrupted. The product should be protected from freezing.

- It should not be applied at very high temperatures, under direct sunlight, in extremely windy, foggy, rainy, frost-risk weather conditions. Low temperature and high relative humidity can extend the drying time.

- It should not be applied in rainy weather and the applied surface should be protected from rain within 24 hours.

- Surface and ambient temperature should be between + 5°C and + 35°C during application.
- If a coating material is to be applied on the product, apply the top coat on the following day of Durex application.
- For exterior use only, not suitable for use on the ground.
- Application tools should be washed with soapy water.
- For further information refer to the safety data sheet.

- Storage
- Should be kept dry and cool at between +5°C and +35°C in damp free conditions avoiding direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Maximum 3 drums should be stacked on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above-mentioned storage conditions.

### Storage

- Should be kept dry and cool at between +5°C and +35°C in damp free conditions avoiding direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Maximum 3 drums should be stacked on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above-mentioned storage conditions.

### Packaging

- 1 lt plastic drum.



Moisture control, increasing resistivity by limiting moisture content, coating.

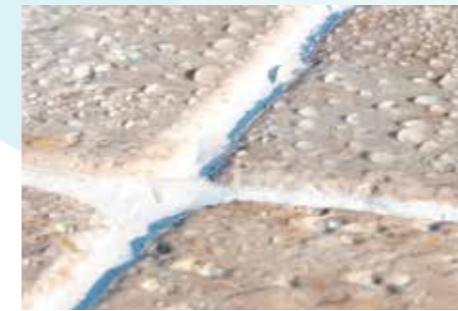
CE It is certified according to TS EN 1504-2. Poz No: 10.300.1252

# 3353 Profesyonel Durex

## Impregnation Waterproofing Surface Protection Material



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	White colour liquid	
Density	1.0 gr/cm <sup>3</sup>	
Shelf Life	12 months when stored in the original sealed packaging.	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Consumption	Approximately 0.2 - 1.0 lt/m <sup>2</sup> (Depending on the porosity of the substrate.)	
Application Layer	2 coats (wet on wet)	
Drying Time	24 hours	
Penetration	Good	
<b>Performance Data</b>		
Density	1,0 ± 0,03 gr/cm <sup>3</sup>	
Water Absorption	< 0.050 kg./m <sup>2</sup> h <sup>1/2</sup>	



### Description

Silane / Siloxane emulsion based, solvent-free, ready to use surface protection and water repellent primer.

### Fields of Application

- Impregnation of porous mineral surfaces such as concrete, lime-sand stone, decorative brick, clinker, where waterproofing is required.
- Priming surfaces of unpolished, absorbent, natural and unnatural stones for protection.
- Priming of surface before application of the paints and plasters.

### Properties

- Does not change appearance of the surface.
- Ready to use.
- Makes the surface waterproof thanks to its deep penetration capability.
- Does not prevent the water vapor permeability of the surface applied on.
- Easy to apply with brush, roller or spray gun.
- Extremely durable; not affected by severe weather conditions like UV, rain and freezing.

### Preparation of Substrates

- The substrates should be dry, clean and solid.
- The surfaces to be coated should be free of adhesion preventive foreign substances such as dust, dirt, mould oil, paint etc.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.

### Application

- The product is ready to use and does not require thinning.
- Stir the product thoroughly before use and check its homogeneity.
- Apply Profesyonel Durex in 2 coats by brush, roller or spraying.
- Apply the 2nd coat before the 1st coat dries (wet on wet).
- Wait 24 hours for complete dryness.

### Post-Application Protection & Suggestions

- The product should be used within the pot life. It should not be used if the products that have expired during the application.
- Keep packaging closed during the application. The product should be protected from freezing.
- It should not be applied at very high temperatures, under direct sunlight, in extremely windy, foggy, rainy, frost-risk weather conditions. Low temperature and high relative humidity can extend the drying time.
- It should not be applied in rainy weather and the applied surface should be protected from rain within 24 hours.
- Surface and ambient temperature should be between + 5 °C and + 30 °C during application.
- If needed, it should be covered with a finish material only after 2-3 days after application.
- Suitable for exterior walls, not for floors.
- Tools should be cleaned with soap and plenty of warm water after application.
- See the Safety Data Sheet for more information.

### Storage

- Should be stored dry and cool at between +10°C and +25°C temperatures, in moisture free conditions and direct sunlight must be avoided.
- Should be protected from water, frost and adverse weather conditions.
- Maximum 3 drums should be stacked on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above-mentioned storage conditions.

### Packaging

- 10 lt plastic drum.



# 3111 Elastiser

## Elastomeric Resin Based Waterproofing Material



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	White & Grey liquid waterproofing material
Shelf Life	12 months when stored in the original sealed packaging.
<b>Application Data</b>	
Application Temperature Range	(+5°C) – (+35°C)
Waiting Time Between Coats (23°C)	4 - 6 hours
Ready to Use	3 - 7 days
Consumption	1.5 - 2 kg/m <sup>2</sup> (for 1 mm thickness)
<b>Performance Data</b>	
Initial Tensile Adhesion Strength (TS EN 14891)	≥ 0.5 N/mm <sup>2</sup>
Tensile Adhesion Strength After Water Contact (TS EN 14891)	≥ 0.5 N/mm <sup>2</sup>
Tensile Adhesion Strength After Heat Ageing (TS EN 14891)	≥ 0.5 N/mm <sup>2</sup>
Tensile Adhesion Strength After Freeze - Thaw Cycles (TS EN 14891)	≥ 0.5 N/mm <sup>2</sup>
Tensile Adhesion Strength After Contact With Lime Water (TS EN 14891)	≥ 0.5 N/mm <sup>2</sup>
Waterproofing (TS EN 14891)	No penetration, ≤ 20 gr mass increase
Crack Bridging Abilities Under Standard Conditions (TS EN 14891)	≥ 0.75 mm
Service Temperature Range	(-30°C) - (+80°C)
Dangerous Substances	See SDS
Reaction to Fire	European classification Ds1d0

### Description

Acrylic emulsion elastomeric resin based, one component, ready to use, elastic and liquid under-tile waterproofing material.

### Fields of Application

- Under-tile waterproofing in wet areas such as bathrooms, toilets, balconies and terraces.
- In horizontal and vertical applications.
- Interior and exterior.
- Suitable for use on concrete, cement-based plaster and screed surfaces, gypsum based surfaces and panels.

### Properties

- 250 % elastic after curing.
- Fast and easy application.
- Tile application can directly be done on the material. Sanding is not needed.
- Ready to use, easily applicable with brush and roller.
- Environmentally friendly, solvent free.
- Provides seamless waterproofing.
- Type: DM (According to TS EN 14891)

### Preparation of Substrates

- The substrates should be dry, clean and solid.
- The surfaces to be coated should be free of adhesion preventive foreign substances such as dust, dirt, mould oil, paint etc.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.
- Use Tamirart series repair mortar in case of any loose and uneven substrates to get a sound and flat surface.
- Corners should be rounded with Tamirart S40.

- In cases where one could not round the corners with structural repair mortar, it is recommended to select the most suitable type of Kalekim Waterproofing Tape at the joints such as horizontal - vertical joints, parapet corners, luminaires, chimney bottoms. This step should be applied after the primer.
- Before applying 3111 Elastiser, the surface should be primed with Kalekim Astar (Primer).

### Application

- 3111 Elastiser should be made ready for use by stirring with a low-speed mixer.
- Apply on to the surface at in least in two coats with a brush or roller. Total thickness of application should be 1.0-1.5 mm.
- Waiting time between the applications of two layers is about 4-6 hours depending on the temperature.
- To obtain the recommended long term technical performance of the product after the application of 3111 Elastiser, it should be covered and protected with a screed, ceramic, tile etc.
- If Elastiser will be covered with tile, a high performance, flexible type of Kalekim Tile Adhesive should be used at least with C2 S1 / S2 class in accordance with EN 12004 standard.

### Post-Application Protection & Suggestions

- 3111 Elastiser is a ready to use product. Please do not add any additives except of those recommended in the data sheet.
- During the covering process, waterproofing material should not be damaged by mechanical effects and waterproofing material should be protected during the curing.

- Fresh applied surfaces should be protected from direct sunlight, strong airflow, high air temperature (over + 35 °C), rain and frost during the first days.
- It should not be applied against negative water pressure.
- The product should be used within the pot life. Products with expired pot life should not be used.
- Keep packaging closed during the application. The product should be protected from freezing.
- It should not be applied at very high temperatures, under direct sunlight, in extremely windy, foggy, rainy, frost-risk weather conditions. Low temperature and high relative humidity can extend the drying time.
- It should not be applied in rainy weather and the applied surface should be protected from rain within 24 hours.
- Surface and ambient temperature should be between + 5 °C and + 30 °C during application.
- See the Safety Data Sheet for more information.

### Storage

- Packages should be kept dry and cool at between +10°C and +35°C in damp free conditions avoiding direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Maximum 3 buckets should be stacked on each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned storage conditions.

### Packaging

- 5 kg and 20 kg plastic pails.



EN 14891'den belgelidir.  
Poz No: 15.270.1001 - 15.270.1002 -  
15.270.1003 - 15.270.1004

# 3131 Elastikor

## Elastomeric Resin Based Waterproofing Material Resistant to UV Rays



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	White liquid
Shelf Life	12 months when stored in the original sealed packaging.
<b>Application Data</b>	
Application Temperature Range	(+5°C) – (+35°C)
Waiting Time Between Coats (23°C)	4 hours
Ready to Use	3 - 7 days
Consumption	~1.5 kg/m <sup>2</sup> (for 1 mm thickness)
Application (vertical)	2 layers Thickness: 0.75 - 1.00 mm
Application (horizontal)	3 layers Thickness: 1.00 - 1.50 mm
<b>Performance Data</b>	
Tensile Strength (EN 1542)	≥ 0.8 N/mm <sup>2</sup>
Tensile Adhesion Strength After Cycling Without De-icing Salts Immersion (EN 13687-3/ EN 1542)	≥ 0.8 N/mm <sup>2</sup>
Tensile Adhesion Strength After Heat Ageing (EN 1062-11/EN 1542)	≥ 0.8 N/mm <sup>2</sup>
Resistance to Accelerated Ageing (EN 1062-11)	No visible change. (2000s UV and condensation )
Crack Bridging (EN 1062-7) (21 °C)	≥ 2.5 mm (A5) / ≥ 1.5 mm (A4)
Flexibility	Highly flexible
Permeability to Water-vapour (EN ISO 7783-2)	Class I ; Sd <5 (Sd: equivalent air thickness)
Carbon Dioxide Permeability (EN 1062-6)	Sd >50 m (Sd: equivalent air thickness)
Chloride Diffusion (ASTM C1202)	≤ 200 Coulomb
Capillary Water Absorption (EN ISO 1062-3)	< 0.1 kg/m <sup>2</sup> h <sup>0.5</sup>
Service Temperature Range	(-30°C) - (+80°C)
Dangerous Substances	See SDS.
Reaction to Fire	European classification Cs1d0

### Description

Elastomeric resin based, one component, waterproofing liquid plastic coating.

### Fields of Application

- Waterproofing of all types of flat or sloping roofs like concrete, plaster, asbestos cement, tile, aluminum, zinc, PVC, asphalt (at least one year old).
- Exterior waterproofing of buildings.
- For crack bridging.

### Properties

- Highly resistant to UV rays.
- 600% elastic.
- Environmentally friendly and solvent free.
- Water vapour permeable.
- Elastic at low temperatures.
- It forms one-piece, no-joint, continuous waterproofing layer
- Low labor cost.
- Over paintable.
- Ready to use, easily applicable with brush and roller.
- Type : DMO1P (Complies with 14891)

### Preparation of Substrates

- The substrate must be dry, clean and sound.
- The substrate must be free of dust, loose parts, paint, wax, oils, rust and traces of gypsum.
- Lower substrates that are not strong enough to carry themselves consisting of e.g. cracked plasters, weak surfaces, or residues of moss should be removed.
- Use Tamirart series repair mortars in case of any loose and uneven substrates to get a sound and flat surface.
- Corners should be rounded with Tamirart S40.
- In cases where one could not round the corners with structural repair mortar, it is recommended to select the most suitable type of Kalekim Waterproofing Tape at the joints such as horizontal - vertical joints, parapet corners, luminaires, chimney bottoms. This step should be applied after the first layer of Elastikor application.

- The surface should be primed with Kalekim Astar (Primer) depending on the absorbency of the substrate before application.
- For metal surfaces use an anti corrosion primer.

### Application

- Elastikor should be made ready for use by stirring with a low-speed mixer.
- Apply on to the surface at least two coats with a brush or roller. Total thickness of application should be 1.0-1.5 mm.
- Second coat should be applied after the first coat is completely dry.
- Waiting time between the applications of two layers is about 4 - 6 hours depending on the temperature and relative humidity.

### Post-Application Protection & Suggestions

- Elastikor is a ready to use product. Please do not add any additives except those recommended in the data sheet.
- The product should be used within the pot life. Products with expired pot life must not be used.
- While covering Elastikor applied surface, the waterproofing material should not be damaged by mechanical effects and it should be protected during the curing.
- Fresh applied surfaces should be protected against direct sunlight, strong airflow, high air temperature (over + 35 °C), rain and frost during the first days.
- Keep packaging closed during the application. The product should be protected from freezing.
- Elastikor should be applied with a special fiber mesh when reinforcing wide open spaces and bridging cracks. It is recommended to use Kalekim Waterproofing Tape at joints such as parapet corners, chimney flashings or to apply the product with a special fiber mesh. This process should be applied after the first layer of Elastikor.

- It should not be applied at very high temperatures, under direct sunlight, in extremely windy, foggy, rainy, frost-risk weather conditions. Low temperature and high relative humidity can extend the drying time.
- It should not be applied in rainy weather and the applied surface should be protected from rain within 24 hours.
- It should not be applied against negative water pressure.
- If Elastikor applied surfaces are subject to foot traffic, cover the surface with a flooring compound or with tiles.
- Use at least S1 type flexible tile adhesive for tiling. Sanding Elastikor applied surface before drying improves adhesion strength on it.
- Surface and ambient temperature should be between + 5 °C and + 30 °C during application.
- The application surface should not be moist.
- Consumption values in the technical table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- See the Safety Data Sheet for more information.

### Storage

- Should be kept dry and cool at between +5°C and +35°C in damp free conditions avoiding direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Maximum 3 buckets should be stacked on each other.
- Shelf life is maximum 12 months under above mentioned storage conditions.

### Packaging

- 3 kg, 10 kg and 20 kg plastic pails.



TS EN 1504-2'ye ve TS EN 14891'den belgelidir.  
Poz No: 15.270.1001 - 15.270.1002 - 15.270.1003 - 15.270.1004

# 3151 Elasticool

## Waterproofing and Coating Material with Solar Reflectance



### Description

One component, highly elastic, liquid plastic coating and waterproofing material which is formulated with high technology polymerization for waterproofing of roof surfaces and providing energy saving by reflecting radiant heat energy.

### Fields of Application

- Waterproofing of all types of flat or sloped roofs and terraces covered with concrete, plaster, asbestos cement, galvanized steel, zinc, aluminum, PVC, polyester and wood.
- Exterior waterproofing of buildings.
- Surfaces of concrete, plaster, stone, clinker, decorative coatings etc.
- Old bitumen, bituminous membrane or asphalt covered surfaces.
- On spray polyurethane foam.
- Used as waterproofing and energy saving material.

### Properties

- High UV (radial heat) reflectivity.
- Reduces the surface temperature of the building by retaining more heat and thus reduces the temperature within the building.
- Saves energy by reducing the need of electricity used for cooling.
- Highly resistant to UV rays.
- 400% elastic.
- Remains flexibility at low temperatures
- Strong adhesion to compelling surfaces.
- Resistant to extreme weather conditions and aging.
- Water vapor permeable.
- Forms a one-piece, no-joint, continuous waterproofing layer.
- Low labor cost.
- Ready to use, easily applicable with brush and roller or by airless spray method.

### Preparation of Substrates

- The substrates must be dry, clean and solid.
- The substrate must be free of dust, loose parts, paint, wax, oils, rust and traces of gypsum.
- The sub-surfaces that are not strong enough to carry themselves consisting of e.g. cracked plasters, weak surfaces, or residues of moss should be removed.
- The application surface should not be moist.
- Use Tamirart series repair mortars in case of any loose and uneven substrates to get a sound and flat surface.
- Corners should be rounded with Tamirart S40.

Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	White liquid
Shelf Life	12 months when stored in the original sealed packaging.
<b>Application Data</b>	
Application Temperature Range	(+5°C) – (+35°C)
Waiting Time Between Coats (23°C)	4 - 8 hours
Ready to Use	3 - 7 days
Consumption	1.5 - 2 kg/m <sup>2</sup> (for 1 mm thickness)
Application (vertical)	2 layers / Thickness: 0.75 - 1.00 mm
Application (horizontal)	3 layers / Thickness: 1.00 - 2.00 mm
<b>Performance Data</b>	
Impermeability to Water	≥ 1 bar / 24 hour
Tensile Strength (EN 1542)	≥ 0.8 N/mm <sup>2</sup>
Tensile Adhesion Strength After Cycling Without De-icing Salts Immersion (EN 13687-3/ EN 1542)	≥ 0.8 N/mm <sup>2</sup>
Tensile Adhesion Strength After Heat Ageing (EN 1062-11/EN 1542)	≥ 0.8 N/mm <sup>2</sup>
Resistance to Accelerated Ageing (EN 1062-11) After 2000 hours UV radiation and humidity; No blistering /cracking /flaking	No visible change.
Crack Bridging (EN 1062-7) (21 °C/-10 °C)	≥ 2.5 mm (A5) / ≥ 2.5 mm (A5)
Total Solar Reflecting	83 %
Thermal Emittance	94 %
Solar Reflectance Index	105 %
Permeability to Water-Vapor (EN ISO 7783-2)	Class I ; Sd <5 (Sd: Equivalent air thickness)
Carbon Dioxide Permeability (EN 1062-6)	Sd >50 m (Sd: Equivalent air thickness)
Capillary Water Absorption (EN ISO 1062-3)	<0.1 kg/m <sup>2</sup> h <sup>0.5</sup>
Service Temperature Range	(-30°C) - (-80°C)
Dangerous Substances	See SDS.
Reactipon to Fire	European classification Cs1d0

- In cases where one could not round the corners with structural repair mortar, it is recommended to select the most suitable type of Kalekim Waterproofing Tape at the joints such as horizontal - vertical joints, parapet corners, luminaires, chimney bottoms. This step should be applied after the first layer of Elasticool application.
- Before application the surface should be primed with Kalekim Astar (Primer) depending on the absorbcency of the substrate.

### Application

- Should be applied in two coats on vertical surfaces and three coats on horizontal surfaces with a brush or roller after mixing with a low-speed mixer. Total thickness of application should be 1.0-1.5 mm.
  - Surfaces carrying risk of cracking (especially heavily used roof surfaces), the thickness should be minimum 2 mm.
  - The 2nd layer should be done after the first coat is completely dry.
  - Waiting time between the applications of two layers is about 4-8 hours. This period may be up to 24 hours depending on the temperature and relative humidity conditions.
- Post-Application Protection & Suggestions
- Elasticool is a ready to use product. Please do not add any additives except those recommended in the data sheet.
  - The product should be used within the shelf life. Products with expired shelf life must not be used.
  - While covering Elasticool applied surface, the waterproofing material should not be damaged by mechanical effects and it should be protected during the curing.
  - Fresh applied surfaces should be protected against direct sunlight, strong airflow, high air temperature (over + 35°C), rain and frost during the first days.
  - Keep packaging closed when application is interrupted. The product should be protected from freezing.

- Elasticool should be applied with a special fiber mesh when reinforcing wide open spaces and bridging cracks. It is recommended to use Kalekim Waterproofing Tape or a special fiber mesh at joints such as parapet corners, chimney flashings. This process should be done after primer.
- It should not be applied at very high temperatures, under direct sunlight, in extremely windy, foggy, rainy, frost-risk weather conditions. Low temperature and high relative humidity can extend the drying time.
- It should not be applied in rainy weather and the applied surface should be protected from rain within 24 hours of application.
- It should not be applied against negative water pressure.
- Surface should not be exposed to heavy traffic.
- Surface and ambient temperature should be at between + 5 °C and + 30 °C during application.
- Avoid ponding of water.
- Consumption values in the technical table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- For further information refer to the safety data sheet.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in damp free conditions avoiding direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Maximum 3 buckets should be stacked on each other.
- Shelf life is maximum 24 months conditional to complying with the above mentioned storage conditions.

### Packaging

- 20 kg plastic pails.



Protection against ingress, moisture control, increasing resistivity by limiting moisture content, coating.



TS EN 1504-2' den belgelidir.  
Poz No: 15.270.1001 - 15.270.1002 - 15.270.1003 - 15.270.1004

# 4701 İzoline Astar

## Bitumen Primer



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Dark brown in can, black after drying.
Density	1.0 gr/cm <sup>3</sup>
Shelf Life	24 months when stored in the original sealed packaging.
<b>Application Data</b>	
Application Temperature	(+5°C) - (+35°C)
Mixing Ratio (İzoline Astar/Water)	5/1-4/1
Drying Time	1 hour
Consumption	~400g/m <sup>2</sup>
Ready to Use	5-6 hours

### Description

Bitumen emulsion-based, ready-to-use primer applied only from the positive side and used to protect the underground or ground level building elements against ground moisture and water leakage.

### Fields of Application

- Building foundations, basements, underground garages,
- For treating surfaces before laying bitumen membranes to improve bonding.
- In horizontal and vertical applications.
- As a primer prior to application of İzoblok series.

### Properties

- One component, water based.
- Used to increase the adhesion strength of bituminous membranes to be applied.
- Applied with a brush and provides ease of application.

### Preparation of Substrates

- The substrates should be dry, clean and solid.
- The surfaces to be coated should be free of adhesion preventive foreign substances such as dust, dirt, mould oil, paint etc.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.
- Use Tamirart series repair mortars in case of any loose and uneven substrates to get a sound and flat surface.
- Corners should be rounded with Tamirart S40.
- Movement joints and seams must be first waterproofed with Kalekim Dilatation Band.

### Application

- Dilute İzoline Astar by adding 20-25% water and mix well.
- Should be applied to the surface with a brush or roller.
- It is recommended to be applied in 2 coats. Do not apply the second coat before the first is completely dry.
- Do not start the covering application before the primer is completely dry.

### Post-Application Protection & Suggestions

- The applied surfaces should be protected against adverse weather conditions such as direct sunlight, strong air flow, high air temperature (over + 35 °C), rain and frost in the first days.
- The product should be used within the pot life. Dispose mortars of which pot life is expired.
- Packaging should be kept closed when the application is paused. The product must be protected from freezing.
- Surface and ambient temperature should be between + 5 °C and + 30 °C during application.
- Apply on dry or damp (but not wet) surfaces. Do not apply during rainy weather.
- No additives should be added other than recommended in the technical data sheet.
- Should not be applied against negative water pressure.
- Clean the tools with water and soap right after application before drying. Once the material is dried, industrial type solvents can be used for cleaning.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- For further information refer to the safety data sheet.

### Storage

- Should be kept dry and cool at between +5°C and +35°C in damp free conditions avoiding direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Maximum 3 buckets should be stacked on top of each other.
- Shelf life is maximum 12 months under above mentioned storage conditions.

### Packaging

- 17 lt plastic pail.

# 3410 İzoblok 1K

## One Component Bitumen-Rubber Based Waterproofing Material



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Black-brown viscous liquid
Shelf Life	12 months when stored in the original sealed packaging.
Solid Content Ratio	70% ± 1
<b>Application Data</b>	
Application and Surface Temperature Range	(+5°C) – (+35°C)
Application Thickness	Min. 3 mm
Mixing Ratio	22 kg liquid/8 kg powder
Consumption	Min. 3.0 kg./m <sup>2</sup> (for 3 mm dry film thickness)
Tack-Free Drying Time	5 hours
Waiting Time Between the Coats	1 - 2 hours (depending on the weather conditions)
Complete Drying Time	1 - 3 days
Ready to Use Time	7 days (depending on the curing time)
<b>Performance Data</b>	
Density	1,26 ± 0,01 gr/ml
Crack Bridging (EN 15812)	Class CB2
Waterproofing Capacity	Class W1 (3 mm dry film thickness)
Resistance to Water (EN 15817)	Pass
Low Temperature Flexibility (EN15813)	Pass
High Temperature Dimensional Stability (EN15818)	Pass
Reaction to Fire (EN 13501-1)	Class E

### Description

Flexible, one component, solvent free, fiber reinforced, ready to use bitumen rubber based waterproofing material used on the positive side only for protection against water leakages of construction elements under the ground or in the floor level.

### Fields of Application

- Waterproofing of sub-base building structure surfaces (horizontal/vertical) which are permanently contact with leaking or pressurized water and moisture,
- Waterproofing of foundations, retaining walls and basement walls, green terraces, sub-base car parking areas, basement floors,
- Waterproofing of interior and exterior mineral surfaces like concrete, stone, brick, plaster, mortar etc.
- Adhesion of polystyrene heat insulation panels.

### Properties

- Flexible and crack-bridging. Bridges shrinkage cracks.
- Forms a seamless moisture and waterproofing membrane.
- Easy to apply (by brush or trowel) on both vertical and horizontal surfaces.
- Highly adherent to any mineral substrate such as concrete, stone, brick.
- Resistant to aging under the conditions where substrate is exposed to several factors such as salt solutions, chemicals in regular soil and weak acids. Performance will remain the same for several years.
- Resistant to freeze-thaw cycles.
- Suitable for areas and surfaces where vibration or motion exists.
- Can be used on brick walls without plastering.
- Solvent free.

### Preparation of Substrates

- The substrates should be dry, clean and solid.
- The surfaces to be applied should be free of adhesive preventive foreign substances such as dust, dirt, mould oil, paint etc.

- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.
- Use Tamirart series repair mortars in case of any loose and uneven substrates to get a sound and flat surface.
- Corners should be rounded with Tamirart S40.
- Movement joints and seams must be first waterproofed with Kalekim Dilatation Band.
- In order to prevent air bubbles that may occur during or just after the application on highly porous surfaces, pores should be treated by Tamirart 40 or İzoblok 1K.
- For improved adhesion on the surface; İzoline Astar should be used as a primer.

### Application

- İzoblok 1K should be mixed by a max. 500 rpm mixer before application. The product is ready-to-use. Do not add any additive.
- After the primer has dried, apply minimum in 2 coats with brush or trowel. Wait for 1-2 hours between coats depending on temperature.
- Depending on the surface porosity and water pressure, more coats can be applied.

### Post-Application Protection & Suggestions

- To reinforce the waterproofing membrane on large areas, horizontal and vertical corners and to bridge the existing cracks, apply with fibre mesh of 70 - 90 g/m<sup>2</sup>. In waterproofing of foundation and sub-base retaining walls, protect the applied surface with suitable brick, drainage or insulation boards.
- Before filling with soil, the waterproofed surface should be protected with thermal insulation board, drainage board or brick against possible damage at underground applications.
- Since it is not UV resistant, it should be properly covered after application.
- Backfilling must be done after İzoblok 1K is cured completely.

- The applied surfaces should be protected against adverse weather conditions such as direct sunlight, strong air flow, high air temperature (over + 35 °C), rain and frost in the first days.
- Packaging should be kept closed when the application is paused. The product must be protected from freezing.
- Surface and ambient temperature should be between + 5 °C and + 30 °C during application.
- Apply on dry or damp (but not wet) surfaces.
- No additives should be added other than recommended in the technical data sheet.
- Application should not be done in rainy weather.
- Should not be applied against negative water pressure.
- Prepared mixture should be used within 3 hours. Dispose mixture of which pot life is expired. Application tools should be washed with soapy water immediately.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- For further information refer to the safety data sheet.

### Storage

- Should be kept dry and cool at between +5°C and +35°C in damp free conditions avoiding direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Maximum 3 buckets should be stacked on top of each other.
- Shelf life is maximum 12 months under above mentioned storage conditions.

### Packaging

- Available in 30 kg plastic pails.

# 3401 İzoblok 2K+

## Two Component Bitumen - Rubber Based, Waterproofing Material



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	1st component: Black-brown liquid; 2nd component: Grey powder
Shelf Life	12 months when stored in the original sealed packaging.
Solid Content Ratio	71% ± 1
<b>Application Data</b>	
Application and Surface Temperature Range	(+5°C) – (+35°C)
Application Thickness	Min. 3 mm
Mixing Ratio	22 kg liquid/8 kg powder
Pot Life	2 – 4 hours
Consumption	Min. 4.5-6 kg /m <sup>2</sup> (for 3 mm dry film thickness)
Tack-Free Drying Time	6 hours
Waiting Time Between the Coats	1 - 2 hours (depending on the weather conditions)
Complete Drying Time	1 - 5 days
Ready to Use Time	7 days (depending on the curing time)
<b>Performance Data</b>	
Density	1,13 ± 0,03 gr/ml
Crack Bridging (EN 15812)	Class CB2
Waterproofing Capacity	Class W1 (3 mm dry film thickness)
Resistance to Water (EN 15817)	Pass
Low Temperature Flexibility (EN15813)	Pass
High Temperature Dimensional Stability (EN15818)	Pass
Durability (EN 15820 & EN 15817)	Pass
Reaction to Fire (EN 13501-1)	Class E

### Description

Flexible, two component, solvent free, fiber reinforced bitumen rubber based waterproofing material used on the positive side only for protection against water leakage of construction elements under the ground or in the floor level.

### Fields of Application

- Waterproofing of sub-base building structure surfaces (horizontal/vertical) which are permanently contact with leaking or pressurized water and moisture.
- Waterproofing of foundations, retaining walls and basement walls, green terraces, sub-base car parking areas, basement floors,
- Waterproofing of interior and exterior mineral surfaces like concrete, stone, brick, plaster, mortar etc.

### Properties

- Flexible and crack-bridging. Bridges shrinkage cracks.
- Forms a seamless moisture and waterproofing membrane.
- Easy to apply (by brush or trowel) on both vertical and horizontal surfaces.
- Highly adherent to any mineral substrate such as concrete, stone, brick.
- Resistant to aging under the conditions where substrate is exposed to several factors such as salt solutions, chemicals in regular soil and weak acids. Performance will remain the same for several years.
- Resistant to freeze-thaw cycles.
- Suitable for areas and surfaces where vibration or motion exists.
- Can be used on brick walls without plastering.
- Solvent free.

### Preparation of Substrates

- The substrates should be dry, clean and solid.
- The surfaces to be applied should be free of adhesive preventive foreign substances such as dust, dirt, mould oil, paint etc.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.

- Use Tamirart series repair mortars in case of any loose and uneven substrates to get a sound and flat surface.
- Corners should be rounded with Tamirart S40.
- Movement joints and seams must be first waterproofed with Kalekim Dilatation Band.
- In order to prevent air bubbles that may occur during or just after the application on highly porous surfaces, pores should be treated by Tamirart 40 or İzoblok 2K+.
- For improved adhesion on the surface; İzoline Astar should be used as a primer.

### Application

- Pour the powder into the liquid component then mix up using an lower than 500 rpm mixer until getting a homogenous mixture without any lumps.
- When total amount of package is not required, mix the powder with liquid at a mixing ratio of 22:8 by weight.
- After the primer has dried, apply minimum in 2 coats with brush or trowel. Wait for 1-2 hours between coats depending on temperature.
- Depending on the surface porosity and water pressure, more coats can be applied.

### Post-Application Protection & Suggestions

- To reinforce the waterproofing membrane on large areas, horizontal and vertical corners and to bridge the existing cracks, apply with fibre mesh of 70 - 90 g/m<sup>2</sup>. In waterproofing of foundation and sub-base retaining walls, protect the applied surface with suitable brick, drainage or insulation boards.
- Before filling with soil, the waterproofed surface should be protected with thermal insulation board, drainage board or brick against possible damage at underground applications.
- Mixture should be consumed within 3 hours. Unfavourable climatic conditions (high temperature, low humidity, wind etc.) can reduce this time to just a few minutes. Dispose mortars of which pot life is expired.
- Since it is not UV resistant, it should be properly covered after application.
- Filling should be done after İzoblok 2K+ is cured completely.

- The applied surfaces should be protected against adverse weather conditions such as direct sunlight, strong air flow, high air temperature (over + 35 °C), rain and frost in the first days.
- Packaging should be kept closed when the application is paused. The product must be protected from freezing.
- Surface and ambient temperature should be between + 5 °C and + 30 °C during application.
- Apply on dry or damp (but not wet) surfaces.
- No additives should be added other than recommended in the technical data sheet.
- Application should not be done in rainy weather.
- Should not be applied against negative water pressure.
- Application tools should be washed with soapy water immediately. It can be cleaned only with industrial type solvents after it dries.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- For further information refer to the safety data sheet.

### Storage

- Should be kept dry and cool at between +5°C and +35°C in damp free conditions avoiding direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Maximum 3 buckets should be stacked on top of each other.
- Shelf life is maximum 12 months under above mentioned storage conditions.

### Packaging

- Available in A+B component 30 kg plastic pails.
- Liquid: 22 kg, Powder: 8 kg

## 3402 Profesyonel 2K

### Two Component Bitumen - Rubber Based, Waterproofing Material



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	1st component: Black-brown liquid; 2nd component: Grey powder	
Shelf Life	12 months when stored in the original sealed packaging.	
Solid Content Ratio	69% ± 1	
<b>Application Data</b>		
Application and Surface Temperature Range	(+5°C) – (+35°C)	
Application Thickness	Min. 3 mm	
Mixing Ratio	22 kg liquid/8 kg powder	
Pot Life	2 - 4 hours	
Consumption	Min. 4.5-6 kg/m <sup>2</sup> (for 3 mm dry film thickness)	
Tack-Free Drying Time	6 hours	
Waiting Time Between the Coats	1 - 2 hours (depending on the weather conditions)	
Complete Drying Time	1 - 5 days	
Ready to Use Time	7 days (depending on the curing time)	
<b>Performance Data</b>		
Density	1,13 ± 0,01 gr/ml	
Crack Bridging (EN 15812)	Class CB2	
Waterproofing Capacity	Class W1 (3 mm dry film thickness)	
Resistance to Water (EN 15817)	Pass	
Low Temperature Flexibility (EN15813)	Pass	
High Temperature Dimensional Stability (EN15818)	Pass	
Reaction to Fire	Class E	

#### Description

Highly flexible, bitumen emulsion based, solvent free, polymer-modified, two-component waterproofing material.

#### Fields of Application

Waterproofing of;

- Sub-base building structure surfaces (horizontal/vertical) which are permanently contact with leaking or pressurized water and moisture,
- Foundations, retaining walls and basement walls, green terraces, sub-base car parking areas, basement floors,
- Wet areas like bathrooms, WC etc.
- Balconies and terraces (under floor covering).
- Interior and exterior mineral surfaces like concrete, stone, brick, plaster, mortar etc.

#### Properties

- Easy to apply (by brush or trowel) on both vertical and horizontal surfaces.
- Highly adherent to mineral substrate like concrete, stone, brick.
- Forms a seamless moisture and waterproofing membrane.
- Resistant to aging under the conditions where substrate is exposed to several factors such as salt solutions, chemicals in regular soil, weak acids. Performance will remain the same for several years.
- Resistant to freeze-thaw cycles.
- Suitable for areas and surfaces where vibration or motion exists.
- Can be used on brick walls without plastering.
- Solvent free.

#### Preparation of Substrates

- The substrates should be dry, clean and solid.
- The surfaces to be coated should be free of adhesive preventive foreign substances such as dust, dirt, mould oil, paint etc.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.
- Use Tamirart series repair mortars in case of any loose and uneven substrates to get a sound and flat surface.

- Corners should be rounded with Tamirart S40.
- Movement joints and seams must be first waterproofed with Kalekim Dilatation Band.
- In order to prevent air bubbles that may occur during or just after the application on highly porous surfaces, pores should be treated by Tamirart 40 or Profesyonel 2K.
- For improved adhesion on the surface; İzoline Astar (Primer) should be used as a primer.

#### Application

- Pour the powder component into the liquid component then mix up using an electric mixer until getting a homogenous mixture without any lumps.
- When the total amount of package is not required, mix the powder with liquid at a mixing ratio of 22:8 by weight.
- After the primer has dried, apply minimum in 2 coats with a brush or trowel. Wait for 1-2 hours depending on temperature between coats.
- Depending on the roughness of the surface and the water pressure that waterproofing layer will be exposed to, the application thickness of the product can be increased if necessary.

#### Post-Application Protection & Suggestions

- To reinforce the waterproofing membrane on large areas, horizontal and vertical corners and to bridge the existing cracks, apply with fibre mesh of 70 - 90 g/m<sup>2</sup>. In waterproofing of foundation and sub-base retaining walls, protect the applied surface with suitable brick, drainage or insulation boards.
- Since it is not UV resistant, it should be properly covered after application.
- Backfilling must be done, after Profesyonel 2K is cured completely.
- Prepared mixture should be used within 3 hours. Dispose mixture of which pot life is expired. Right after the application clean tools and hands with water.

- The applied surfaces should be protected against adverse weather conditions such as direct sunlight, strong air flow, high air temperature (over + 35 °C), rain and frost in the first days.
- Packaging should be kept closed when the application is paused. The product must be protected from freezing.
- Surface and ambient temperature should be between + 5 °C and + 30 °C during application.
- Apply on dry or damp (but not wet) surfaces.
- No additives should be added other than recommended in the technical data sheet.
- Application should not be done in rainy weather.
- Should not be applied against negative water pressure.
- Application tools should be washed with water immediately after the application.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- For further information refer to the safety data sheet.

#### Storage

- Should be kept dry and cool at between +5°C and +35°C in damp free conditions avoiding direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Maximum 3 buckets should be stacked on top of each other.
- Shelf life is maximum 12 months under above mentioned storage conditions.

#### Packaging

- Liquid: 22 kg, Powder: 8 kg.
- Available in A+B component 30 kg plastic pails.

## 3403 Profesyonel 2K+

### Two Component, Bitumen Based Waterproofing Material



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	1st component: Black-brown liquid; 2nd component: Grey powder	
Shelf Life	12 months when stored in the original sealed packaging.	
Solid Content Ratio	A Component: 59% ; A+B Component: 69%	
<b>Application Data</b>		
Application and Surface Temperature Range	(+5°C) – (+35°C)	
Application Thickness	Min. 3 mm	
Mixing Ratio	24 kg liquid/8 kg powder	
Pot Life	2 - 4 hours	
Consumption	Min. 4.5-6 kg/m <sup>2</sup> (for 3 mm dry film thickness)	
Tack-Free Drying Time	6 hours	
Waiting Time Between the Coats	1 - 2 hours (depending on the weather conditions)	
Complete Drying Time	1 - 5 days	
Ready to Use Time	7 days (depending on the curing time)	
<b>Performance Data</b>		
Density	1,20 ± 0,03 gr/ml	
Crack Bridging (EN 15812)	Class CB2	
Waterproofing Capacity	Class W1 (3 mm dry film thickness)	
Resistance to Rain (EN15816)	Class R2 (8 hours)	
Resistance to Water (EN 15817)	Pass	
Low Temperature Flexibility (EN15813)	Pass	
High Temperature Dimensional Stability (EN15818)	Pass	
Reaction to Fire	Class E	

#### Description

Highly flexible, two component, polymer modified, bitumen emulsion based, solvent free waterproofing material.

#### Fields of Application

Waterproofing of;

- Sub-base building structure surfaces (horizontal/vertical) which are permanently contact with leaking or pressurized water and moisture,
- Foundations, retaining walls and basement walls, green terraces, sub-base car parking areas, basement floors,
- Interior and exterior mineral surfaces like concrete, stone, brick, plaster, mortar etc.

#### Properties

- Fiber reinforced.
- Flexible and crack-bridging.
- Can be used on brick walls without plastering and provide adherence.
- Easy to apply (by brush or trowel) on both vertical and horizontal surfaces.
- Forms a seamless moisture and waterproofing membrane.
- Resistant against conditions where substrate is exposed to several factors such as salt solutions, chemicals in regular soil, weak acids. Performance will remain the same for several years.
- Resistant to freeze-thaw cycles.
- Suitable for areas and surfaces where vibration or motion is present.
- Solvent free.

#### Preparation of Substrates

- The substrates should be dry, clean and solid.
- The surfaces to be coated should be free of adhesive preventive foreign substances such as dust, dirt, mould oil, paint etc.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.
- Use Tamirart series repair mortars in case of any loose and uneven substrates to get a sound and flat surface.

- Corners should be rounded with Tamirart S40.
- Movement joints and seams must be first waterproofed with Kalekim Dilatation Band.
- In order to prevent air bubbles that may occur during or just after the application on highly porous surfaces, pores should be treated by Tamirart 40 or Profesyonel 2K+.
- For improved adhesion on the surface; İzoline Astar (Primer) should be used as a primer.

#### Application

- Pour the powder component into the liquid component then mix up using an electric mixer until getting a homogenous mixture without any lumps.
- When the total amount of package is not required, mix the powder with liquid at a mixing ratio of 24:8 by weight.
- After the primer has dried, apply minimum in 2 coats with a brush or trowel. Wait for 1-2 hours between coats depending on temperature.
- Depending on the roughness of the surface and the water pressure that waterproofing layer will be exposed to, the application thickness of the product can be increased if necessary.

#### Post-Application Protection & Suggestions

- To reinforce the waterproofing membrane on large areas, at horizontal and vertical corners and to bridge the existing cracks, apply with fibre mesh of 70 - 90 g/m<sup>2</sup>. In waterproofing of foundation and sub-base retaining walls, protect the applied surface with suitable bricks, drainage or insulation boards.
- Since it is not UV resistant, it should be properly covered after application.
- Backfilling must be done, after Profesyonel 2K+ is cured completely.
- Prepared mixture should be used within 3 hours. Dispose mixture of which pot life is expired. Right after the application clean tools and hands with water.
- The applied surfaces should be protected from adverse weather conditions such as direct sunlight, strong air flow, high air temperature (over + 35°C), rain and frost in the first days.

- Packaging should be kept closed when the application is paused. The product must be protected from freezing.
- Surface and ambient temperature should be between + 5°C and + 30°C during application.
- Apply on dry or damp (but not wet) surfaces.
- No additives should be added other than recommended in the technical data sheet.
- Application should not be done in rainy weather.
- Should not be applied against negative water pressure.
- Application tools should be cleaned with water immediately after the application.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- For further information refer to the safety data sheet.

#### Storage

- Should be kept dry and cool at between +5°C and +35°C in damp free conditions avoiding direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Maximum 3 buckets should be stacked on top of each other.
- Shelf life is maximum 12 months under above mentioned storage conditions.

#### Packaging

- Liquid: 24 kg, Powder: 8 kg.
- Available in A+B component 32 kg plastic pails.

## 3451-3452-3453 İzopur

### Polyurethane Waterproofing System



#### İzopur P Polyurethane Primer Application

- The substrate must be sound, dry, clean and free of any contaminants like dirt, oils, dust etc. that may prevent good adhesion. The surface must be cleaned from all loose materials like existing coating prior to application.
- Moisture content should not exceed 5%. Do not wash the surface with water!
- New concrete structures need to be cured for at least 28 days.
- Use Tamirart or Tamirart S40 in case of any loose and uneven substrates to get a sound and flat surface.
- Apply Waterproofing Tape on joints and edges.
- Otherwise horizontal and vertical connections and sharp edges should be smoothed by Tamirart S40 or Kalepolymas.
- For best results, the temperature during application and curing should be between 5°C and 35°C. Curing time increases at low temperatures.
- Apply İzopur P by brush, roller or airless spray on absorbent surfaces like concrete, cement screed or wood.
- If the substrate is very absorbent and brittle, apply two coats of İzopur P.
- After 2 - 3 hours (not later than 4 hours) and while the primer is still a bit tacky apply İzopur polyurethane waterproofing coating.

#### İzopur Polyurethane Waterproofing Application

- Stir well before using. Pour İzopur onto the primed surface and lay it out by roller or brush, until all surface is covered. In wide areas airless spray can be used.
- Always reinforce the problematic areas such as large surfaces, floor-wall joints, parapet corners, and chimney bottoms. For this, 50 - 60 gr / m<sup>2</sup> synthetic resin should be used. İzopur should be applied to the surface with a brush or roller and polyester felt should be placed by pressing on the applied surface. Felt must be pressed until it is soaked and saturated with enough İzopur.
- After 12 hours (not later than 36 hours) apply another coat of İzopur. Dry film thickness should not exceed 0.6mm for each layer of İzopur.
- For the protection of coating to obtain UV-stable and chalking-free surface, apply one or two coats of İzopur C over İzopur.

#### İzopur C: Polyurethane Topcoat Application

- İzopur C should be applied after 24 hours of İzopur application.
- Stir İzopur C well before using.
- Apply İzopur C by brush, roller or airless spray in one or two coats. Allow 3 - 4 hours (not more than 6 hours) to cure, between the two coats.

#### Crack Fixing and Waterproofing

- The cracks on the concrete should be clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the membrane.
- After priming with İzopur P, the surface should be left to dry for 3-4 hours.
- Primed cracks should be filled with Kalepolymas and one layer of İzopur polyurethane waterproofing material should be applied on it.
- Apply a correct cut piece of insulation fabric (50 g/ m<sup>2</sup> polyester geo-textile) on the still wet İzopur.
- Press the fabric until it is soaked and saturated with enough İzopur.
- After 12 hours (not later than 36 hours) apply another coat of İzopur.

#### Sealing and Repairing of Joints

- Clean concrete expansion joints and control joints of dust, residue or other contaminants.
- Widen and deepen joints (cut open) if necessary. The prepared movement joint should have a depth of 10 - 15 mm and a width of 20 - 25 mm.
- Apply some Kalepolymas on the bottom of the joint only.
- Then with a brush, apply one layer of İzopur in 10 cm wide inside and on both left and right sides of the joint. Place insulation fabric (50 - 60 gr./m<sup>2</sup> polyester geo-textile) over the wet coating and with a suitable tool, press it deep inside the joint, until it is soaked and the joint is fully covered from the inside.
- Then fully saturate the fabric with enough İzopur. Fill the remaining free space of the joint with Kalepolymas sealant.
- Do not cover. Allow 12 hours to cure.

#### Storage

- Protect from water, frost and severe weather conditions.
- Should be stored on wooden pallets in a clean, dry and moisture-free environment at between +10°C and +25°C.
- Burst or opened packages should be closed immediately and consumed first.
- Maximum 3 packages should be stacked on top of each other.
- Shelf life is maximum 9 months when stored in the original sealed packaging.

#### Packaging

- İzopur P: 5 kg tin pail.
- İzopur: 25 kg tin pail.
- İzopur C: 5 kg tin pail.

## 3452 İzopur P

### Polyurethane Primer for Absorbent Surfaces

#### Description

One component, transparent polyurethane primer material for absorbent surfaces. It is used as primer material before İzopur application.

#### Fields of Application

- Priming of old and dusty surfaces.
- To increase the abrasion resistance of mineral based surfaces.
- Before İzopur application, priming of absorbent surfaces like wood, concrete, cement screed, cement based mortars etc.

#### Properties

- Excellent adhesion to absorbent surfaces.
- Penetrates deeply with high adherence to all mineral and concrete surfaces, it impregnates.
- Dries fast.
- Resistant to abrasion and water.
- Easy to apply (by brush, roller or airless spray).

#### Technical Properties

(20°C ve %50 Bağıl Nem)

General Data	
Appearance	Yellow color, transparent liquid
Shelf Life	9 months when stored in the original packaging.
Application Data	
Tack Free Time (20 °C, %50 BN)	2-3 hours
Set to Light Traffic	12 hours
Final Curing Time (20 °C, %50 BN)	7 days
Consumption	200 - 250 g/m <sup>2</sup> in one coat, depending on porosity of the surface and application method.

## 3451 İzopur

### Polyurethane Based Waterproofing Material

#### Description

One component, ready-to-use, polyurethane-based waterproofing material that has high elasticity and mechanical strength.

#### Fields of Application

- Waterproofing of roofs, balconies and terraces.
- Protection of polyurethane foam insulation.
- Waterproofing and protection of concrete constructions like bridge decks etc.

#### Properties

- Easy to apply (by brush, roller or airless spray).
- Seamless, extra elastic membrane.
- Resistant to water and frost.
- Maintains its mechanical properties at a temperature span of -20°C to +80°C.
- Crack-bridging up to 2 mm, even at -10°C.
- Excellent adhesion.
- Resistant to UV rays.
- Easy to repair locally.
- Good resistance against acidic and alkali solutions, detergents, sea water and oils.
- Fills non-structural cracks and reduces water absorption.

#### Technical Properties

(20°C ve %50 Bağıl Nem)

General Data	
Appearance	Grey and White liquid
Shelf Life	9 months when stored in the original packaging
Application Data	
Application Temperature	(+10°C) - (+35°C)
Rain Stability Time	6-8 hours
Set to Light Traffic	12-18 hours
Final Curing Time	7 days
Consumption	1.0 – 1.2 kg/m <sup>2</sup> in a single layer, depending on porosity of the surface and application method.

#### Performance Data

Density	1,35-1,45 gr/ml
Elongation at Break (ASTM D 412)	200% ± 50
Tensile Strength (ASTM D 412)	≥ 2.50 Mpa
Resistance to Water Pressure (DIN 1928)	No leak (1m. water column, 24 hour)
Adhesion to Concrete (EN 1542)	>1.5 N/mm <sup>2</sup> (concrete surface failure)
Hardness (Shore A Scale) (DIN 53505)	70 ± 5
Crack Bridging ( EN 1504-2)	23 °C ≥ 2,5 mm
Fire Class (DIN 4102-1)	B2
Chemical Properties	Good resistance against acidic and alkali solutions (10%), detergents, seawater and oils.

## 3453 İzopur C

### Polyurethane Topcoat

#### Description

One component, ready-to-use, UV-resistant, high elasticity and mechanical strength, polyurethane-based topcoat material.

#### Fields of Application

- On İzopur polyurethane based waterproofing membrane applied surfaces, like roofs, balconies, terraces etc.
- Protection of concrete constructions like bridges, etc.

#### Properties

- Easy to apply (by brush, roller or airless spray).
- Elastic
- UV resistant, non-yellowing and permanently elastic.
- Gives a glossy and easy-to-clean surface.
- Resistant to water and frost.
- Maintains its mechanical properties at a temperature span of -30°C to +90°C.
- Can be walked on.

#### Technical Properties

(20°C ve %50 Bağıl Nem)

General Data	
Görünüm	Grey and White liquid
Raf Ömrü	9 months when stored in the original packaging
Application Data	
Application Temperature	(+10°C) - (+35°C)
Rain Stability Time	1-3 hours
Set to Light Traffic	12 hours
Final Curing Time	7 days
Consumption	1,0 - 1,2 kg/m <sup>2</sup> in one coat, depending on porosity of the surface and application method.

#### Performance Data

Density	0,95-1,1 gr/ml
Elongation at Break (ASTM D 412)	% 150
Tensile Strength (DIN EN ISO 527)	≥ 4 MPa
Adhesion to İzopur (ASTM D903)	≥ 2 N/mm <sup>2</sup>
2000 hours Accelerated Aging Test Results (DIN EN ISO 4892-3, 400MJ/m <sup>2</sup> )	No chalking observed.
Surface chalking	

## 3454-3455 İzopur Trans

### Transparent Polyurethane Waterproofing System



#### İzopur Trans P Application

- The substrate must be sound, dry, clean and free of any contamination like dirt, oils, dust etc. that may prevent good adhesion. The surface must be cleaned from all loose materials like existing coating prior to application.
- Do not apply İzopur Trans on surfaces previously treated with active silane, siloxane, silicone or other water repellents, that may cause poor adhesion. If there is no information about the prior application, an adherence test should be conducted.
- Cementitious surfaces to be applied should be cured at least for 28 days.
- Do not wash the surface with water. RH of the surface should be lower than 5%.
- Glossy surfaces like glass, ceramic etc. Should be treated with İzopur Trans P.
- Application temperature should be between +10°C and +35°C and relative humidity should be between 50% and 70%.
- Apply İzopur Trans P by soaking a clean and dry cloth, and wipe the entire surface off. Change clothes often.
- Make sure that enough quantity of İzopur Trans P is applied on the entire surface without leaving any untreated spots.
- After approx. 1 - 2 hours, apply İzopur Trans P transparent polyurethane waterproofing material.

#### İzopur Trans Transparent Polyurethane Waterproofing Application

- Pour İzopur Trans coating onto the primed surface and lay it out by roller until all surface is covered. Application on large surfaces can be done by airless spray.
- Do not apply İzopur Trans over 1 mm thickness (dry film) per coat.
- After 12 hours (but not later than 18 hours) apply a second coat of İzopur Trans
- For better waterproofing and wear resistance results, application of a third coat is recommended.

#### Crack Fixing and Waterproofing

- The substrate must be sound, dry, clean and free of any contamination like dirt, oils, dust etc. that may prevent good adhesion. The surface must be cleaned from all loose materials like existing coating prior to application.
- Prime absorbent surfaces like concrete, cement screed or wood with İzopur P. After 2 - 3 hours and while the primer is still a bit tacky apply İzopur Trans.
- Primed cracks should be filled with Kalepolymas.

#### Storage

- Protect from water, frost and severe weather conditions.
- Should be stored on wooden pallets in a clean, dry and moisture-free environment at between +10°C and +25°C.
- Burst or opened packages should be closed immediately and consumed first.
- Maximum 3 packages should be stacked on top of each other.
- Shelf life is maximum 9 months when stored in the original sealed packaging.

#### Packaging

- İzopur Trans P: 1 kg tin pails.
- İzopur Trans: 5 kg tin pails.

## 3455 İzopur Trans P

### İzopur Trans için Seramik Yüzey Astarı

#### Description

One component, transparent and ready to use polyurethane based primer which enhances adherence for polyurethane waterproofing materials to be applied on glossy surfaces.

#### Fields of Application

- In preparation of glossy surfaces like glass and glazed ceramic tiles before İzopur Trans application.

#### Properties

- Easy to apply.
- Degreases and provides excellent adhesion onto non-absorbent surfaces, like glass, ceramic.
- Dries fast.

#### Technical Properties

(23°C ve %50 Bağıl Nem)

#### General Data

Appearance	Transparent liquid
Shelf Life	9 months when stored in the original packaging.

#### Application Data

Application and Surface Temperature Range	(+5°C) – (+35°C)
Consumption	30 - 60 g/m <sup>2</sup>

## 3454 İzopur Trans

### Polyurethane Based, Transparent Waterproofing Material

#### Description

One component, transparent, ready-to-use, UV-resistant, polyurethane-based waterproofing material that has high elasticity and mechanical strength.

#### Fields of Application

- Waterproofing of balconies and terraces, coated with all kinds of materials.
- Waterproofing of ceramic, glass, glass brick, natural Stone, wood and bamboo surfaces without any change in appearance, thanks to its transparency.

#### Properties

- Easy to apply (by brush, roller or airless spray).
- UV-stable, non-yellowing.
- Forms a transparent, seamless and elastic membrane.
- Resistant to water and frost.
- Maintains its mechanical properties over a temperature span of -30°C to +90°C.
- Excellent adhesion.
- Can be walked on.
- Good resistance against acidic and alkali solutions, detergents, sea water and oils.

#### Technical Properties

(20°C ve %50 Bağıl Nem)

#### General Data

Appearance	Yellow color transparent liquid
Shelf Life	9 months when stored in the original packaging

#### Application Data

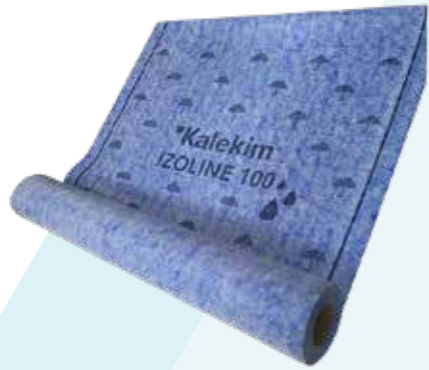
Application Temperature	(+5°C) - (+35°C)
Rain Stability Time	8 hours
Set to Light Traffic	24-48 hours
Final Curing Time	7 days
Consumption	0.4 – 0.6 kg/m <sup>2</sup> in two or three coats, depending on porosity of the surface and application method.

#### Performance Data

Elongation at Break (DIN EN ISO 527)	250%
Tensile Strength (DIN EN ISO 527)	≥ 5 N/mm <sup>2</sup>
Hardness (Shore D Scale) (ASTM D2240)	60
Water Vapor Permeability (EN ISO 12572)	6 g/m <sup>2</sup> (24 hours)
Resistance to Water Pressure (DIN EN 1928)	No leak (1m. water column, 24 hour)
Adhesion to Absorbent Ceramic Tile (ASTM D 903 (ELCOMETRI))	> 2.0 N/mm <sup>2</sup> (concrete surface failure)
Chemical Properties	Good resistance against acidic and alkali solutions (10%), detergents, seawater and oils.

# İzoline 100

## Under Tile Waterproofing Membrane



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Polyethylene blue colored membrane with both sides coated in felt	
Width	1 meter	
Thickness	~ 0.5 mm	
Roll Length	30 meter	
Shelf Life	24 months in an unopened package in a dry environment.	
<b>Application Data</b>		
Application Temperature	(+5°C) – (+35°C)	
Temperature Resistance	(-30°C) - (+80°C)	
<b>Performance Data</b>		
Water Impermeability	≥ 1.5 bar (positive)	
Explosion Pressure	> 2 bar	
Tensile Strength – Lengthwise	335 N/50 mm	
Tensile Strength – Widthwise	225 N/50 mm	
Elongation at Rupture – Lengthwise	87%	
Elongation at Rupture – Widthwise	133%	
Adhesion Strength (EN 1348)	> 0.5 N/mm <sup>2</sup> (with Technoflex)	
Water Vapor Permeability (EN 1931)	Sd > 50 m (Sd: Equivalent air layer thickness)	
UV Resistance	> 450 hours	
Dangerous Substances	See SDS.	
Reaction to Fire	European Class Cs1d0	

### Description

3-layer, super-elastic waterproofing membrane consisting of modified polyethylene film laminated in between polypropylene felt of high alkali resistance to be applied prior to the coating of materials, such as tile and natural stones, both in internal and external environments.

### Fields of Application

- In areas subject to wetness such as bathrooms, showers and Turkish baths,
- In continuously wet areas such as pools and small volume water tanks,
- In terraces and balconies,
- On surfaces that are subject to activity (pedestrian, load traffic, expansion),
- In food products industry (milk, beer, wine, meat integrated facilities, slaughter houses, cafeterias and restaurants), in facilities that require chemical resistance such as the ones belonging to the textile industry, hospitals, laboratories and pharmaceuticals industry,
- On plaster and cement based panels, and on concrete, plaster, screed surfaces.

### Properties

- It provides fast application and the opportunity to apply the next application without waiting.
- Waterproofs.
- Resistant to diluted acidic and alkali solutions.
- High elasticity and crack bridging ability.
- Easy and fast application in a single layer.
- According to the criteria of the European technical approval agency (ETAG 022) suitable for use in wet areas.

### Preparation of Substrates

- The substrates should be dry, clean and solid.
- The surfaces to be coated should be free of adhesive preventive foreign substances such as dust, dirt, mould oil, paint etc.

- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.
- Use Tamirart series repair mortars and Master 10 in case of any loose and uneven substrates to get a sound and flat surface.
- The application surface must be protected against sun, rain and dust for a period of one day and application must not be made under direct sunlight.
- Prior to the application, the surface must be dampened to the degree it would be saturated. Care must be taken to avoid collecting water in some areas. When deemed necessary Kalekim Astar or Gypsastar must be applied. In applications to be made on tiles, Kalekim Dolgulu Astar must definitely be used.
- On corners and joints Technoflex, Technopool, Technomax 30, Ultratech tile adhesive (minimum C2 class and S1 flexibility) and Kalekim Waterproofing Tape – Type III must be applied while İzoline 100 Supplementary Products are applied on corners and pipe details (interior and exterior corners, pipe and floor collar).

### Application

- İzoline 100 water insulation membrane is cut in a size appropriate for the area of application. İzoline 100 is placed on Technoflex, Technopool, Technomax, Ultratech tile adhesive (minimum C2 class and S1 flexibility) that is applied with the help of 4 mm or 6 mm dredge. It is ensured that İzoline 100 fully adheres to the surface by removing any excess mortar on the bottom layer by moving the trowel from the middle to the outer edges in a manner that would not leave any air bubbles.
- When İzoline 100 is being applied side by side, two membranes must overlap by at least 5 cm and the overlapping parts must be fixed to each other by means of the tile adhesive used for adhesion.

- At parts that would be subject to constant and high water pressure (pools, thermal springs, etc.), the membranes must not overlap but be placed end to end. The joints of the membranes that are placed end to end must be insulated by means of Kalekim Waterproofing Tape – Type III application by using flexible water insulation materials such as İzolex Plus, İzolatex UV, Elastikor and Ultralastic.
- After İzoline 100 application is completed, tile application can be started without waiting. Tile application must be made by using tile adhesive of minimum S1 flexibility such as Technoflex, Technopool, Technomax 30, and Ultratech.

### Post-Application Protection & Suggestions

- When tile application on top of İzoline 100 is not made immediately, the surface must be protected against direct sunlight and rain.
- İzoline 100 applied surfaces should be coated with a flooring compound or tiles.
- During the coating process, the insulation material should not be mechanically damaged.

### Storage

- Should be kept dry and cool at between +5°C and +35°C in damp free conditions avoiding direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 24 months under above mentioned storage conditions.

### Packaging

- Polyethylene foil wrapped in a 30 m roll.

# 3501 Kalekim Waterproofing Tape

## Waterproofing Tape



Technical Properties			
<b>General Data</b>			
Type	I	II	III
Property	Polyester knit fabric reinforced	Polyester textile reinforced	Polyurethane membrane covered by polyester textile
Appearance	Grey	Grey	White
Width	120 mm / 70 mm	120 mm / 70 mm	120 mm / 120 mm
Thickness	0,54 mm	0,63 mm	0,44 mm
<b>Performance Data</b>			
Burst Pressure	≥ 1,5 bar	≥ 1,5 bar	≥ 1,5 bar
Water Pressure Resistance	≥ 1,5 bar	≥ 1,5 bar	≥ 1,5 bar
Elongation at Break (long.)	> %18	> %15	> %10
Elongation at Break (trans.)	> %90	> %100	> %120
Temperature Resistance	(-30°C) - (+90°C)	(-30°C) - (+90°C)	(-30°C) - (+90°C)

### Description

Thermoplastic elastomeric waterproofing tape with polyester knit fabric reinforcement for wall and base connections, expansion and construction joints.

### Fields of Application

- Waterproofing of water depots, wet areas (bathroom, kitchen, wc).
- Waterproofing of terraces, balconies, parapets, roof finishings.
- Waterproofing of construction and expansion joints.

### Properties

- Resistant to dilute acidic and alkali solutions.
- Resistant to UV.
- High elasticity.
- Resistant to high water pressure.
- Easily applicable.

### Preparation of Substrates

- The inner and outer surfaces of the joints to be applied must be free from oil, dirt and dust.
- Surface must be clean, dry and free from oils, grease, residual paint and other loose material.
- Use Tamirart or Tamirart S40 in case of any loose and uneven substrates to get a sound and flat surface.

### Application

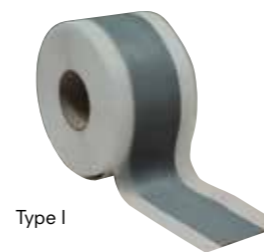
- First layer of the waterproofing material should be applied on the joint to be waterproofed. Waterproofing tape should be inserted in the fresh layer by the help of a brush. Polyester fiber reinforcement should be bedded well.
- Application of the other layers should start immediately after the curing of the first layer.

### Storage

- Store in cool and dry medium protecting from direct sunlight for 24 months.

### Packaging

- 10 and 50 m roll in a paper box.



Type I



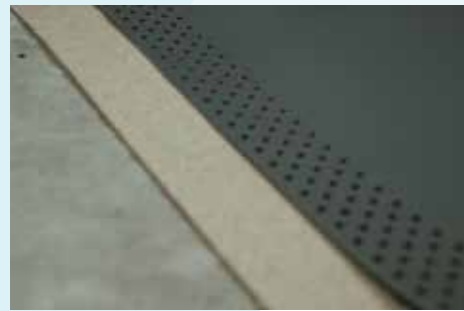
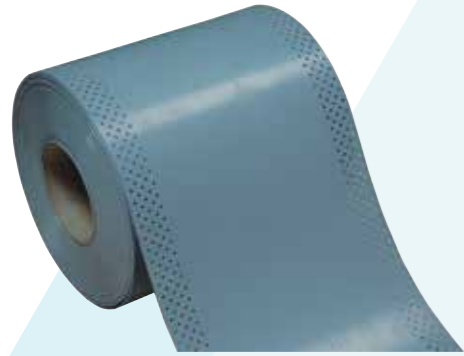
Type II



Type III

# 3502 Kalekim Dilatation Tape

## Elastic Waterproofing Tape for Dilatation



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Grey, perforated edges
Width	200 mm
Thickness	1.0 mm ± 0.1
<b>Application Data</b>	
Shore A Hardness	~ 90
Burst Pressure	> 4.0 bar
Breaking Strength (lengthwise) (DIN EN 12311-2 Method B)	15 N/mm <sup>2</sup>
Breaking Strength (widthwise) (DIN EN 12311-2 Method B)	15 N/mm <sup>2</sup>
Elongation at Break (long.) (DIN EN 12311-2 Method B)	> 600 %
Elongation at Break (trans.) (DIN EN 12311-2 Method B)	> 650 %
Bond Strength (DIN EN 1348)	> 4.5 Bar
Resistance to Water Pressure (DIN EN 1928-B-400 kPa/72 Std.)	4 Bar
Resistance to UV (DIN EN ISO 4892-2)	≥ 6500 hour
Reaction to Fire	Class E
Temperature Resistance	(-30°C) - (+90°C)

### Description

Thermoplastic elastomeric dilatation tape for wall and base connections, expansion and construction joints.

### Fields of Application

Waterproofing of;

- Underground concrete elements like foundations, retaining walls, basement walls.
- Permanently wet areas like pools.
- Water depots, treatment plants, tunnels.
- Terraces, balconies, parapets, roof finishings.

### Properties

- Resistant to dilute acidic and alkali solutions.
- Resistant to UV.
- High elasticity and bonding strength.
- It keeps its flexibility even in cold weather.
- Resistant to high water pressure.
- Fusible with standard hot-air-dryers.
- Easily applicable.

### Preparation of Substrates

- The inner and outer surfaces of the joints to be applied must be free from oil, dirt and dust.
- Surface must be clean, dry and free from oils, grease, paint residues and other loose materials.
- Use Tamirart or Tamirart S40 in case of any loose and uneven substrates to get a sound and flat surface.

### Application

- Place the waterproofing tape on the joint to be applied. Adhere by applying Epotech+ and Tamirart EP under the perforated region.
- After Kalekim Dilatation Band is placed on the epoxy adhesive applied on the dilatation joint, the second layer of epoxy adhesive should be applied wet-on-wet on the perforated sides and the tape is adhered to the surface.

- Where longitudinal joining is required, hot air can be blown until the band melts and welded to another dilatation band.
- For fusing, select a low temperature setting so that only the surface of the tape melts in order not to affect the tightness of the product.
- In order to obtain desired elongation of Kalekim Dilatation Tape, avoid contamination of the middle area of the tape with epoxy adhesive. The tape must stay flexible by doing upside-down omega.

### Storage

- Store in cool and dry medium protecting from direct sunlight for 24 months.

### Packaging

- 20 m roll in paper box.

# 3503 İzoswell

## Hydrophilic Swelling Tape



Technical Properties	(23°C ve %50 Bağıl Nem)
<b>General Data</b>	
Appearance	White strip
Density	1.256 ± 0.08 g/cm <sup>3</sup>
Shore A	26 ± 2
Dimensions	20x5 mm, 20x10 mm
<b>Performance Data</b>	
Volumetric % swelling (14 days later)	
<b>Demineralised water</b>	
20x5 mm	% 1200 ± 100
20x10 mm	% 700 ± 100
<b>Tap water</b>	
20x5 mm	% 1000 ± 100
20x10 mm	% 600 ± 100
Melting point	110 °C
Tensile strength (unswollen state) (EN ISO 527)	≥ 0,3 MPa
Elongation at rupture (unswollen state) (EN ISO 527)	≥ % 300
Resistant to permanent water	2 bar (20 m)
Bursting pressure	2,8 N/mm <sup>2</sup>

### Description

Hydrophilic swell strip consisting of an acrylate based polymer swelling substance embedded in a butylene copolymer based thermoplastic elastomer.

### Fields of Application

- Around all sorts of lead-throughs and construction joints (stationary joints).
- Foundations and basement walls.
- Water and drinking water tanks.
- Swimming pools.
- Waterproofing joints between precast concrete elements.
- Used in steel and concrete pipes.

### Properties

- Easy to apply.
- Swells in contact with tap water by up to 600% after 2 weeks.
- Excellent re-swelling performance in wet-dry cycles.
- Resistant to contact with groundwater, tap water, salt water, pure water and alkaline water.
- Keeps its shape even at high temperatures.
- It provides easy application in reinforced concrete thanks to its widely varied dimensions and shapes.
- Very good swelling capacities in highly alkaline environments.

### Preparation of Substrates

- The substrates should be dry, clean and solid, and should not apply on wet and frozen surfaces.
- Structural repair mortars Tamirart 40 or Tamirart S40 should be used in case of any loose and uneven substrates to get a sound and flat surface.

### Application

- İzoswell is applied in the middle of the construction joint.
- It is advisable to allow at least 8 cm of concrete on both sides of the swelling tape to prevent cracks in the concrete.
- The ends of the swell strips should be placed head-to-head against each other or with an overlap of 10 cm.

### Post-Application Protection & Suggestions

- It must be checked and made sure that swelling tape is not damaged before placing concrete.
- Swelling tape should not contact with water until placing the concrete.
- İzoswell should not be used in expansion joints.
- Already expanded tapes are not suitable for application.

### Storage

- 2 years in its original packaging under dry and frost-free conditions.

### Packaging

- 20x5 mm :  
9 rolls of 20 m per box (180 m / box)  
30 boxes (5400 m) per euro pallet
- 20x10 mm :  
10 m / rolls  
9 rolls of 10 m per box (90 m / box)  
30 boxes (2700 m) per euro pallet





# Performance is in its Chemistry!

*Powerful, durable, long-lasting!*



## Tile Adhesives

- 98 KALEKİM
- 99 KALEKİMBEYAZ
- 100 KALEKİMZUMAZ
- 101 TECHNOfLEX
- 102 GRANİTECH
- 103 PROFESYONEL
- 104 TECHNOBLOCK
- 105 ULTRATECH
- 106 TECHNOMAX 30
- 107 RAPİTECH
- 108 RAPİTECH FLEX
- 109 PROFESYONEL FLEX
- 110 TECHNOPOOL
- 111 TECHNOfULL
- 112 TECHNOLIGHT
- 113 SUPERTECH
- 114 EPOTECH A
- 115 EPOTECH W
- 116 TECHNOfPUR
- 117 KALEKİM LEVEL MASTER
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- 120 TILE ADHESIVES PRODUCT  
SELECTION CHART
- 124 ADHESIVE SELECTION CHART FOR  
LARGE SIZED AND THIN TILES

# 1051 Kalekim

## Tile Adhesive (C1TE)



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Grey powder
Shelf Life	12 months when stored in the original sealed packing in dry place.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Mixing Ratio	7-7,75 lt water / 25 kg powder 1.4 -1.5 lt water / 5 kg powder
Pot Life	6 hours
Grouting	8 hours on wall; 24 hours after on floor
Consumption	3-5 kg/m <sup>2</sup>
<b>Performance Data</b>	
Slip (EN 1308)	≤ 0.5 mm
Open Time (EN 1346)	After 30 minutes ≥ 0.5 N/mm <sup>2</sup>
Tensile Adhesion Strength (EN 1348)	
-initial	≥ 0.5 N/mm <sup>2</sup>
-after heat exposure	≥ 0.5 N/mm <sup>2</sup>
-after immersion in water	≥ 0.5 N/mm <sup>2</sup>
-after freeze/thaw cycles	≥ 0.5 N/mm <sup>2</sup>
Service Temperature Range (after final cure)	(-40°C) - (+80°C)
Release of Dangerous Substances (EN 12004)	See SDS.
Reaction to Fire (EN 13501-1)	A1

### Description

Cementitious ceramic tile adhesive with extended open time and reduced slip.

### Fields of Application

- Floor and wall bonding of all types of ceramic tiles, mosaic and decorative bricks on cementitious renders, cementitious screeds and concrete.
- Bonding of tiles on existing ceramic.

### Properties

- Perfect adherence.
- Allows installation of tiles from top towards the bottom.
- Extended open time.
- Easily trowelable.

### Preparation of Substrates

- Substrates must be sound, free from oil, grease, and sufficiently dry. Cementitious substrates must be cured.
- Cracked plasters mortar and cement residues must be scraped off the surface.
- The porous surfaces should be wetted and must be left to dry before application.
- Use Tamirart or Mastar 10 in case of uneven substrates to get a sound and flat surface.
- The surface should be primed with Kalekim Astar (Primer) depending on the absorbency of the substrate before application.
- Exposed concrete surfaces should be primed with Kalekim B-tone in order to increase the adhesion strength of tile adhesive.
- In case of application on existing tile, first prime the surface with Kalekim Dolgulu Astar (Smooth Surface Primer).
- Wipe the back sides of tiles with water if dusty.

### Application

- Pour Kalekim 1051 on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix. Do not add any additive which is not mentioned in the instructions for the application.
- Allow to stand for 5 - 10 minutes to mature. After 1-2 minutes remixing, the paste is ready for application.
- Consumption is 3-5 kg/m<sup>2</sup>.
- Consume the prepared mortar within 6 hours.
- Spread the mortar onto the substrate with a notched trowel of which notch size is appropriate to the tile dimension. To obtain a good adhesion first apply a thin coat of Kalekim 1051 with the flat side of the trowel, then notch with the toothed side of the trowel.
- Open time is 30 minutes. Install the tiles within this period with a firm pressure. Unfavourable climatic conditions (high temperature, low humidity, wind, etc.) can reduce this time to just a few minutes, If this period is exceeded, scratch and discard the mortar.

### Post-Application Protection & Suggestions

- Clean tools and hands with water, and surfaces with a damp cloth.
- Dispose mortars of which the pot life is expired.
- Tiles installed with Kalekim must not be subject to water for at least 24 hours and must be protected from frost and strong sunlight for at least 5-7 days after installation.
- Time required for grouting on walls is 8 hours and on floors is 24 hours.

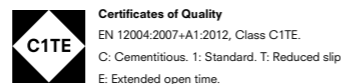
- Floors can be opened to light foot traffic after 24 hours.
- The surface should be protected from air stream during and after the application.
- It should not be applied in rainy weather and the applied surface should be protected from rain in 24 hours.
- The mortar should not be exposed to direct sunlight and the mixture should be made with warm water.
- Application temperature should be between +5°C and +35°C.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- 5 kg Polyethylene bag.
- 20 kg multi-ply paper bags.
- 25 kg multi-ply paper bags.



# 1052 Kalekimbeyaz

## White Tile Adhesive (C1TE)



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	White powder
Shelf Life	12 months when stored in the original sealed packing in dry place.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Mixing Ratio	7-7,75 lt water / 25 kg powder
Pot Life	6 hours
Grouting	8 hours on wall; 24 hours after on floor
Consumption	3-5 kg/m <sup>2</sup>
<b>Performance Data</b>	
Slip (EN 1308)	≤ 0.5 mm
Open Time (EN 1346)	After 30 minutes ≥ 0.5 N/mm <sup>2</sup>
Tensile Adhesion Strength (EN 1348)	
-initial	≥ 0.5 N/mm <sup>2</sup>
-after heat exposure	≥ 0.5 N/mm <sup>2</sup>
-after immersion in water	≥ 0.5 N/mm <sup>2</sup>
-after freeze/thaw cycles	≥ 0.5 N/mm <sup>2</sup>
Service Temperature Range (after final cure)	(-40°C) - (+80°C)
Release of Dangerous Substances (EN 12004)	See SDS.
Reaction to Fire (EN 13501-1)	A1

### Description

White cementitious ceramic tile adhesive with extended open time and reduced slip.

### Fields of Application

- Floor and wall bonding of all types of ceramic tiles, mosaic and decorative bricks on cementitious renders, cementitious screeds and concrete.
- Bonding of tiles on existing ceramic tiles.
- Exterior bonding and grouting of glass mosaics.
- Interior and exterior bonding of glass bricks.

### Properties

- Perfect adherence.
- Allows installation of tiles from top towards the bottom.
- Extended open time.
- Easily trowelable.

### Preparation of Substrates

- Substrates must be sound, free from oil, grease, and sufficiently dry. Cementitious substrates must be cured.
- Cracked plasters mortar and cement residues must be scraped off the surface.
- The porous surfaces should be wetted and must be left to dry before application.
- Use Tamirart or Mastar 10 in case of uneven substrates to get a sound and flat surface.
- The surface should be primed with Kalekim Astar (Primer) depending on the absorbency of the substrate before application.
- Exposed concrete surfaces should be primed with Kalekim B-tone in order to increase the adhesion strength of tile adhesive.
- In case of application on existing tile, first prime the surface with Kalekim Dolgulu Astar (Smooth Surface Primer).
- Wipe the back sides of tiles with water if dusty.

### Application

- Pour KalekimBeyaz on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix. Do not add any additive which is not mentioned in the instructions for the application.
- Allow to stand for 5 - 10 minutes to mature. After 1-2 minutes remixing, the paste is ready for application.
- Consumption is 3-5 kg/m<sup>2</sup>.
- Consume the prepared mortar within 6 hours.
- Spread the mortar onto the substrate with a notched trowel of which notch size is appropriate to the tile dimension. To obtain a good adhesion first apply a thin coat of Kalekim Beyaz with the flat side of the trowel, then notch with the toothed side of the trowel.
- Open time is 30 minutes. Install the tiles within this period with a firm pressure. Unfavourable climatic conditions (high temperature, low humidity, wind, etc) may reduce this time to just a few minutes, If this period is exceeded, scratch and discard the mortar.

### Post-Application Protection & Suggestions

- Clean tools and hands with water, and surfaces with a damp cloth.
- Dispose mortars of which the pot life is expired.
- Tiles installed with KalekimBeyaz must not be subject to water for at least 24 hours and must be protected from frost and strong sunlight for at least 5-7 days after installation.
- Time required for grouting on walls is 8 hours and on floors is 24 hours.
- Floors can be opened to light foot traffic after 24 hours.
- The surface should be protected from air stream during and after the application.

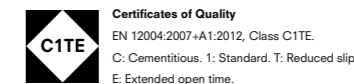
- It should not be applied in rainy weather and the applied surface should be protected from rain in 24 hours.
- The mortar should not be exposed to direct sunlight and the mixture should be made with warm water.
- Application temperature should be between +5°C and +35°C.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- 20 kg multi-ply paper bags.
- 25 kg multi-ply paper bags.



# 1053 Kalekimtozumaz

## Dust-Free Tile Adhesive (C1TE)



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Grey powder	
Shelf Life	12 months when stored in the original sealed packing in dry place.	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Mixing Ratio	6,75-7,25 lt water / 25 kg powder	
Pot Life	6 hours	
Grouting	8 hours on wall; 24 hours after on floor	
Consumption	3-5 kg/m <sup>2</sup>	
<b>Performance Data</b>		
Slip (EN 1308)	≤ 0.5 mm	
Open Time (EN 1346)	After 30 minutes ≥ 0.5 N/mm <sup>2</sup>	
Tensile Adhesion Strength (EN 1348)		
-initial	≥ 0.5 N/mm <sup>2</sup>	
-after heat exposure	≥ 0.5 N/mm <sup>2</sup>	
-after immersion in water	≥ 0.5 N/mm <sup>2</sup>	
-after freeze/thaw cycles	≥ 0.5 N/mm <sup>2</sup>	
Service Temperature Range (after final cure)	(-40°C) - (+80°C)	
Release of Dangerous Substances (EN 12004)	See SDS.	
Reaction to Fire (EN 13501-1)	A1	



### Description

Dust-free, cementitious, one component ceramic tile adhesive with extended open time and reduced slip.

### Fields of Application

- Floor and wall bonding of all types of ceramic tiles, mosaic and decorative bricks on cementitious renders, cementitious screeds and concrete.
- Bonding of tiles on existing ceramic tiles.

### Properties

- User friendly with dust-free technology.
- Perfect adherence.
- Allows installation of tiles from top towards the bottom.
- Extended open time.
- Easily trowelable.

### Preparation of Substrates

- Substrates must be sound, free from oil, grease, and sufficiently dry. Cementitious substrates must be cured.
- Cracked plasters mortar and cement residues must be scraped off the surface.
- The porous surfaces should be wetted and must be left to dry before application.
- Use Tamirart or Mastar 10 in case of uneven substrates to get a sound and flat surface.
- The surface should be primed with Kalekim Astar (Primer) depending on the absorbency of the substrate before application.
- Exposed concrete surfaces should be primed with Kalekim B-tone in order to increase the adhesion strength of tile adhesive.
- In case of application on existing tile, first prime the surface with Kalekim Dolgulu Astar (Smooth Surface Primer).
- Wipe the back sides of tiles with water if dusty.

### Application

- Pour KalekimTozumaz on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix. Do not add any additive which is not mentioned in the instructions for the application.
- Allow to stand for 5-10 minutes to mature. After remixing, the paste is ready for application.
- Consumption is 3-5 kg/m<sup>2</sup>.
- Consume the prepared mortar within 6 hours.
- Spread the mortar onto the substrate with notched trowel of which notch size is appropriate to the tile dimension To obtain a good adhesion first apply a thin coat of KalekimTozumaz with the flat side of trowel, then notch with the toothed side of trowel.
- Open time is 30 minutes. Install the tiles within this period with a firm pressure. Unfavourable climatic conditions (high temperature, low humidity, wind, etc.) can reduce this time to just a few minutes. If this period is exceeded, scratch and discard the mortar.

### Post-Application Protection & Suggestions

- Clean tools and hands with water, and surfaces with a damp cloth.
- Dispose mortars of which the pot life is expired.
- Tiles installed with Kalekim Tozumaz must not be subject to water for at least 24 hours and must be protected from frost and strong sunlight for at least 5-7 days after installation.
- Time required for grouting on walls is 8 hours and on floors is 24 hours.
- Floors can be opened to light foot traffic after 24 hours.
- The surface should be protected from air stream during and after the application.

- It should not be applied in rainy weather and the applied surface should be protected from rain in 24 hours.
- The mortar should not be exposed to direct sunlight and the mixture should be made with warm water.
- Application temperature should be between +5°C and +35°C.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- 25 kg multi-ply paper bags.

# 1054 Technoflex

## Deformable Tile Adhesive (C2TE S1)



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Grey and White powder	
Shelf Life	12 months when stored in the original sealed packing in dry place.	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C) (-10°C) - (+23°C) (Thanks to Wintertech)	
Mixing Ratio	6.5-7 liters water / 25 kg for grey powder 7-7.5 liters water / 25 kg for white powder	
Pot Life	6 hours	
Grouting	8 hours on wall; 24 hours after on floor	
Consumption	3-5 kg/m <sup>2</sup>	
<b>Performance Data</b>		
Slip (EN 1308)	≤ 0.5 mm	
Slip (ANSI A118.4 6.0)	≤ 0.02 in. (0.5 mm)	
Open Time Tensile Adhesion Strength	After 30 minutes ≥ 0.5 N/mm <sup>2</sup>	
Open Time (ANSI A118.4 5.3)	≥ 75 psi (0.5 MPa) at 30 minutes	
Tensile Adhesion Strength		
-initial (after 28 days)	≥ 1 N/mm <sup>2</sup>	
-after heat exposure	≥ 1 N/mm <sup>2</sup>	
-after immersion in water	≥ 1 N/mm <sup>2</sup>	
-after freeze/thaw cycles	≥ 1 N/mm <sup>2</sup>	
Shear Strength, impervious ceramic (porcelain mosaics) (ANSI A118.4 7.2.5) (after 28 days)	> 200 psi (1.38 MPa)	
Shear Strength, glazed wall tile (ANSI A118.4 7.1.2) (after 7 days)	> 300 psi (2.07 MPa)	
Shear Strength, quarry tile (ANSI A118.4 7.3.2) (after 28 days)	> 150 psi (1.03 MPa)	
Shear Strength, quarry tile to plywood (ANSI A118.11 4.1.2) (after 28 days)	> 150 psi (1.03 MPa)	
Deformability	≥ 2.5mm - S1 Deformable	
Service Temperature Range (after final cure)	(-40°C) - (+80°C)	
Release of Dangerous Substances (EN 12004)	See SDS.	
Reaction to Fire	A2	

### Description

High performance cementitious S1 class deformable tile adhesive, with extended open time and reduced slip, for ceramic tiles and stones.

### Fields of Application

- Interior and exterior floor and wall bonding of all types and sizes of ceramic tiles, natural stone, marble, granite, porcelain ceramic, clinker, cotto on cementitious renders, cementitious screeds and concrete.
- Bonding of tiles on existing ceramic tile, granite.
- Bonding of tiles on painted walls and gypsum.
- Bonding of ceramic tiles in swimming pools, basins and any other wet places.
- Bonding of tiles on terraces and balconies.
- Bonding of tiles on places where sudden temperature changes occur like cold storage depots and underfloor heating systems.
- Bonding of tiles on places subject to heavy traffic like shopping malls, hospitals, schools.
- Approved for use with plywood.

### Properties

- Perfect adherence.
- Highly deformable thanks to its S1 classification, it is resistant to temperature changes.
- Can be applied on vertical surfaces even for bonding of heavy tiles, without sagging.
- Extended open time.
- Easily trowelable.
- Complies with ANSI A118.11 and A118.4 standart.

### Preparation of Substrates

- Substrates must be sound, free from oil, grease and sufficiently dry. Cementitious substrates must be cured.
- Cracked plaster mortar and cement residues must be scraped off the surface.
- The porous surfaces should be wetted and must be left to dry before application.
- Use Tamirart or Mastar 10 in case of uneven substrates to get a sound and flat surface.
- The surface should be primed with Kalekim Astar (Primer) depending on the absorbency of the substrate before application.

- Exposed concrete surfaces should be primed with Kalekim B-tone in order to increase the adhesion strength of tile adhesive.
- In case of application on existing tile, first prime the surface with Kalekim Dolgulu Astar (Smooth Surface Primer).
- Wipe the back sides of tiles with water if dusty.

### Application

- Pour Technoflex into the advised amount of clean water slowly and mix to obtain a homogeneous paste, free from lumps. A low speed mixer is recommended to mix. Do not add any additive which is not mentioned in the instructions for the application.
- Allow the mortar to stand for 5-10 minutes to mature. After 1-2 minutes of remixing, the paste is ready for application.
- Consumption is 3-5 kg/m<sup>2</sup>.
- Consume the prepared mortar within 6 hours.
- Spread the mortar onto the substrate with a notched trowel, of which notch size is appropriate to the tile dimension. To obtain a good adhesion, first apply a thin coat of Technoflex with the flat side of the trowel, then notch with the toothed side of the trowel.
- In case of applications of large tiles (greater than 40x40 cm), on existing tiles or in areas which are subject to frost or heavy traffic, Technoflex should also be applied on the back of tiles (combined method).
- Open time is 30 minutes. Install the tiles within this period of time with firm pressure. Unfavorable climatic conditions (high temperature, low humidity, wind, etc.) can reduce this time to just a few minutes. If this period is exceeded, scratch and discard the mortar.

### Post-Application Protection & Suggestions

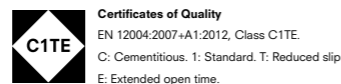
- Clean tools and hands with water, and surfaces with a damp cloth.
- It is recommended to use protective gloves and goggles.
- Dispose mortars of which the pot life is expired.
- Tiles installed with Technoflex must not be subject to water for at least 24 hours and must be protected from frost and strong sunlight for at least 5-7 days after installation.
- Time required for grouting on walls is 8 hours and on floors is 24 hours.
- Floors can be opened to light foot traffic after 24 hours.
- It should not be applied in rainy weather and the applied surface should be protected from rain in 24 hours.
- Application temperature should be between +5°C and +35°C.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.

### Storage

- Product storage conditions should be between +5°C and +35°C.
- Store in dry medium.
- Do not stack more than 10 bags on top of each other.

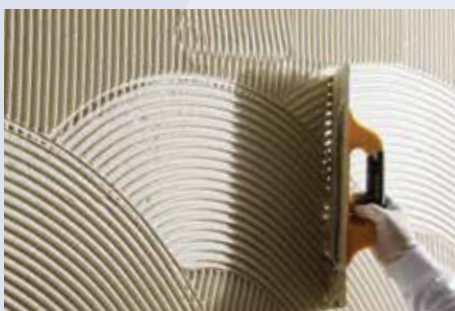
### Packaging

- 20 and 25 kg multi-ply paper bags.



# 1055 Granitech

## Granite Tile Adhesive (C2TE)



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Grey and White powder
Shelf Life	12 months when stored in the original sealed packing in dry place.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Mixing Ratio	6.5-7 liters water / 25 kg for grey powder 7-7.5 liters water / 25 kg for white powder
Pot Life	4 hours
Grouting	8 hours on wall; 24 hours after on floor
Consumption	3-5 kg/m <sup>2</sup>
<b>Performance Data</b>	
Slip (EN 1308)	≤ 0.5 mm
Open Time (EN 1346)	After 30 minutes ≥ 0.5 N/mm <sup>2</sup>
Tensile Adhesion Strength (EN 1348)	
-initial	≥ 1 N/mm <sup>2</sup>
-after heat exposure	≥ 1 N/mm <sup>2</sup>
-after immersion in water	≥ 1 N/mm <sup>2</sup>
-after freeze/thaw cycles	≥ 1 N/mm <sup>2</sup>
Service Temperature Range (after final cure)	(-40°C) - (+80°C)
Release of Dangerous Substances (EN 12004)	See SDS.
Reaction to Fire (EN 13501-1)	A1

### Description

High performance cementitious adhesive with extended open time and reduced slip.

### Fields of Application

- Interior and exterior floor and wall bonding of all types and sizes of ceramic tiles, granite, porcelain ceramic, cotto, clinker on cementitious renders, cementitious screeds and concrete.
- Bonding of tiles on existing ceramic tiles or marble.
- Bonding of tiles on places subject to heavy traffic like shopping malls, hospitals, schools.

### Properties

- Perfect adherence.
- Can be applied on vertical surfaces even for bonding of heavy tiles without sagging.
- Easily trowelable.

### Preparation of Substrates

- Substrates must be sound, free from oil, grease, and sufficiently dry. Cementitious substrates must be cured.
- Cracked plasters mortar and cement residues must be scraped off the surface.
- The porous surfaces should be wetted and must be left to dry before application.
- Use Tamirart or Mastar 10 in case of uneven substrates to get a sound and flat surface. Use Gypsastar on anhydrite screeds.
- The surface should be primed with Kalekim Astar (Primer) depending on the absorbency of the substrate before application.
- Exposed concrete surfaces should be primed with Kalekim B-tone in order to increase the adhesion strength of tile adhesive.
- Wipe the back sides of tiles with water if dusty.

### Application

- Pour Granitech on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix. Do not add any additive which is not mentioned in the instructions for the application.
- Allow to stand for 5 - 10 minutes to mature. After 1-2 minutes remixing, the paste is ready for application.
- Consumption is 3-5 kg/m<sup>2</sup>.
- Consume the prepared mortar within 4 hours.
- Spread the mortar onto the substrate with a notched trowel of which notch size is appropriate to the tile dimension. To obtain a good adhesion first apply a thin coat of Granitech with the flat side of the trowel, then notch with the toothed side of the trowel.
- Application of large tiles (greater than 40x40), on existing tiles or which are subject to frost or heavy traffic, Granitech should be applied also on the back of tiles.(combined method)
- Open time is 30 minutes. Install the tiles within this period with a firm pressure. Unfavourable climatic conditions (high temperature, low humidity, wind, etc.) can reduce this time to just a few minutes, if this period is exceeded, scratch and discard the mortar.

### Post-Application Protection & Suggestions

- Clean tools and hands with water, and surfaces with a damp cloth.
- Dispose mortars of which the pot life is expired.
- Tiles installed with Granitech must not be subject to water for at least 24 hours and must be protected from frost and strong sunlight for at least 5-7 days after installation.

- Time required for grouting on walls is 8 hours and on floors is 24 hours.
- Floors can be opened to light foot traffic after 24 hours.
- The surface should be protected from air stream during and after the application.
- It should not be applied in rainy weather and the applied surface should be protected from rain in 24 hours.
- The mortar should not be exposed to direct sunlight and the mixture should be made with warm water.
- Application temperature should be between +5°C and +35°C.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- 25 kg multi-ply paper bags.



Certificates of Quality  
EN 12004:2007+A1:2012, Class C2TE  
C: Cementitious 2: Improved T: Reduced slip  
E: Extended Open Time



# 1056 Profesyonel

## Granite Tile Adhesive (C2T)



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Grey and White powder
Shelf Life	12 months when stored in the original sealed packing in dry place.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Mixing Ratio	6.5-7 liters water / 25 kg for grey powder 7-7.5 liters water / 25 kg for white powder
Pot Life	6 hours
Grouting	8 hours on wall; 24 hours after on floor
Consumption	3-5 kg/m <sup>2</sup>
<b>Performance Data</b>	
Slip (EN 1308)	≤ 0.5 mm
Open Time (EN 1346)	After 20 minutes ≥ 0.5 N/mm <sup>2</sup>
Tensile Adhesion Strength (EN 1348)	
-initial	≥ 1 N/mm <sup>2</sup>
-after heat exposure	≥ 1 N/mm <sup>2</sup>
-after immersion in water	≥ 1 N/mm <sup>2</sup>
-after freeze/thaw cycles	≥ 1 N/mm <sup>2</sup>
Service Temperature Range (after final cure)	(-40°C) - (+80°C)
Release of Dangerous Substances (EN 12004)	See SDS.
Reaction to Fire (EN 13501-1)	A1

### Description

High performance cementitious adhesive with reduced slip.

### Fields of Application

- Interior and exterior floor and wall bonding of all types and sizes of ceramic tiles, granite, porcelain ceramic, cotto, clinker on cementitious renders, cementitious screeds and concrete.
- Bonding of tiles on existing ceramic tiles or marble.

### Properties

- Perfect adherence.
- Can be applied on vertical surfaces even for bonding of heavy tiles without sagging.
- Easily trowelable.

### Preparation of Substrates

- Substrates must be sound, free from oil, grease, and sufficiently dry. Cementitious substrates must be cured.
- Cracked plasters mortar and cement residues must be scraped off the surface.
- The porous surfaces should be wetted and must be left to dry before application.
- Use Tamirart or Mastar 10 in case of uneven substrates to get a sound and flat surface.
- The surface should be primed with Kalekim Astar (Primer) depending on the absorbency of the substrate before application.
- Exposed concrete surfaces should be primed with Kalekim B-tone in order to increase the adhesion strength of tile adhesive.
- In case of application on existing tile, first prime the surface with Kalekim Dolgulu Astar (Smooth Surface Primer).
- Wipe the back sides of tiles with water if dusty.

### Application

- Pour Profesyonel on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix. Do not add any additive which is not mentioned in the instructions for the application.
- Allow to stand for 5 - 10 minutes to mature. After 1-2 minutes remixing, the paste is ready for application.
- Consumption is 3-5 kg/m<sup>2</sup>.
- Consume the prepared mortar within 6 hours.
- Spread the mortar onto the substrate with a notched trowel of which notch size is appropriate to the tile dimension. To obtain a good adhesion first apply a thin coat of Profesyonel with the flat side of the trowel, then notch with the toothed side of trowel.
- Application of large tiles (greater than 40x40), on existing tiles or which are subject to frost or heavy traffic, Profesyonel should be applied also on the back of tiles.(combined method)
- Open time is 20 minutes. Install the tiles within this period with a firm pressure. Unfavourable climatic conditions (high temperature, low humidity, wind, etc.) can reduce this time to just a few minutes, if this period is exceeded, scratch and discard the mortar.

### Post-Application Protection & Suggestions

- Clean tools and hands with water, and surfaces with a damp cloth.
- Dispose mortars of which the pot life is expired.
- Tiles installed with Profesyonel must not be subject to water for at least 24 hours and must be protected from frost and strong sunlight for at least 5-7 days after installation.

- Time required for grouting on walls is 8 hours and on floors is 24 hours.
- Floors can be opened to light foot traffic after 24 hours.
- The surface should be protected from air stream during and after the application.
- It should not be applied in rainy weather and the applied surface should be protected from rain in 24 hours.
- The mortar should not be exposed to direct sunlight and the mixture should be made with warm water.
- Application temperature should be between +5°C and +35°C.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- 25 kg multi-ply paper bags.



Certificates of Quality  
EN 12004:2007+A1:2012, Class C2T.  
C: Cementitious 2: Improved  
T: Reduced slip



# 1058 Technoblock

## Aerated Concrete Block Adhesive



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Grey and White powder	
Shelf Life	12 months when stored in the original sealed packing in dry place.	
Particle Size	Max. 1 mm	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C) (-10°C) - (+23°C) (Thanks to Wintertech)	
Mixing Ratio	7-7.75 lt water / 25 kg grey powder 7.5-8 lt water / 25 kg white powder	
Pot Life	5 hours	
Correction Time	≥ 6 min.	
<b>Performance Data</b>		
Compressive Strength (EN 1015-11)	≥ 5 N/mm <sup>2</sup> /M5	
Air Content	< 20 %	
Bond Strength (EN 1052-3)	≥ 0.3 N/mm <sup>2</sup>	
Water Absorption Coefficient (EN 1015-18)	≤ 0.40 kg/m <sup>2</sup> min <sup>0.5</sup>	
Water Vapor Permeability (EN 1745)	5/20 (Table Value)	
Thermal Conductivity (EN 1745)	0.45 W/mk	
Release Dangerous Substances (EN 12004-1)	See SDS.	
Reaction to Fire (EN 13501-1)	A1	

### Description

Cementitious masonry mortar for bonding high water absorbing construction elements like aerated concrete.

### Fields of Application

- Bonding of aerated concrete and any other high water absorbing construction elements.

### Properties

- Perfect adherence.
- Easily trowelable.
- Labor-cost effective.

### Preparation of Substrates

- Surface should be dry, smooth and durable.
- Substrates must be sound, free from oil, grease, and sufficiently dry. Cementitious substrates must be cured.

### Application

- Pour Technoblock on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix. Do not add any additive which is not mentioned in the instructions for the application.
- Allow to stand for 5 - 10 minutes to mature. After remixing, the paste is ready for application.
- Spread the mortar onto the substrate with a notched trowel of which notch size is 10x10x10 mm. While laying the blocks, vertical and horizontal joints should have a maximum 3 mm width and fill them completely with Technoblock.
- Open time is 10 - 15 minutes. Lay the blocks within this period with a firm pressure. Unfavourable

climatic conditions (high temperature, low humidity, wind, etc.) can reduce this time to just a few minutes. If this period is exceeded, scratch and discard the mortar.

Consumption Data	A (cm)	B (cm)	C (cm)	Consumption (kg/m <sup>2</sup> )
	20	50	20	5 - 8
	20	70	20	5 - 7
	30	50	15	3 - 5
	30	70	15	3 - 4
	30	50	20	4 - 6
	30	70	20	4 - 6

### Post-Application Protection & Suggestions

- Clean tools and hands with water, surfaces with a damp cloth.
- Dispose mortars of which pot life is expired.
- After trowelling the mortar, aerated concrete block must be put on adhesive within 5 - 10 minutes.
- It must not be applied in rainy weather and the applied surface should be protected from rain for next 24 hours.
- Application temperature and storage conditions should be between +5°C and +35°C.
- Since contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- 25 kg multi-ply paper bags.

# 1059 Ultratech

## Two Component, Extra Fast Setting, Highly Deformable Tile Adhesive (C2FTE S2)



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	1st component: Grey powder 2nd component: White liquid	
Shelf Life	12 months when stored in the original sealed packing in a dry place.	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Mixing Ratio	7.5 liters liquid / 25 kg powder	
Pot Life	1 hours	
Grouting	2-3 hours	
Consumption	4.5 - 6.5 kg/m <sup>2</sup> (Combined Method)	
<b>Performance Data</b>		
Slip (EN 1308)	≤ 0.5 mm	
Open Time (EN 1346)	After 30 minutes ≥ 0.5 N/mm <sup>2</sup>	
Tensile Adhesion Strength		
-after 3 hours	≥ 0,5 N/mm <sup>2</sup>	
-Initial (after 28 days)	≥ 1 N/mm <sup>2</sup>	
-after heat exposure	≥ 1 N/mm <sup>2</sup>	
-after immersion in water	≥ 1 N/mm <sup>2</sup>	
-after freeze/thaw cycles	≥ 1 N/mm <sup>2</sup>	
Deformability	≥ 5mm - S2 Highly deformable	
Service Temperature Range (after final cure)	(-40°C) - (+80°C)	
Release Dangerous Substances	See SDS.	
Reaction to Fire	Bs1d0	

### Description

Two component, high performance, flexible, fast setting cementitious adhesive with reduced slip and extended open time for ceramic tiles and stones.

### Fields of Application

- Exterior bonding of large size ceramic tiles, stones, granite tiles, porcelain tiles, marble, etc.
- Ultratech allows grouting within 2-3 hours after application and rapid tiling of large size tiles in places which have to be ready for use within one day.
- Bonding of tiles on places which are subject to heavy traffic like shopping malls, hospitals, schools.
- Floor and wall bonding of large format and thin tiles (3-5 mm) like Kalesinterflex.
- Interior and exterior floor and wall bonding of all types and sizes of ceramic tiles, natural stone, marble, granite, porcelain ceramic, clinker, cotto on cementitious renders, cementitious screeds and concrete.
- Exterior bonding of ceramic, granite or porcelain tiles with dimensions more than 40x40 cm up to 30 meter height and more than 60x60 cm up to 15 meter height.

### Properties

- Perfect adherence.
- Extra fast setting: sets within 3 hours.
- Highly deformable, resistant to temperature changes.
- Resistant to all climatic conditions.
- Can even be used on vertical surfaces for bonding of heavy tiles without sagging.
- Extended open time.

### Preparation of Substrates

- Substrates must be sound, free from oil, grease, and sufficiently dry. Cementitious substrates must be cured.
- Cracked plasters mortar and cement residues must be scraped off the surface.
- The porous surfaces should be wetted and must be left to dry before application.
- Use Tamirart or Mastar 10 in case of uneven substrates to get a sound and flat surface. Use Gypsastar on anhydrite screeds.
- The surface should be primed with Kalekim Astar (Primer) depending on the absorbency of the substrate before application.

- Exposed concrete surfaces should be primed with Kalekim B-tone in order to increase the adhesion strength of tile adhesive.
- Wipe the back sides of tiles with water if dusty.

### Application

- Pour 25 kg of powder component into 7.5 liters of liquid component slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix. Do not add any additive which is not mentioned in the instructions for the application.
- Allow to stand for 5 - 10 minutes to mature. After 1-2 minutes remixing, the paste is ready for application.
- Consumption is 4.5-6.5 kg/m<sup>2</sup>.
- Consume the prepared mortar within 1 hours.
- Spread the mortar onto the substrate with a notched trowel of which notch size is appropriate to the tile dimension to obtain a good adhesion.
- First apply a thin coat of Ultratech with the flat side of the trowel, then notch with the toothed side of the trowel.
- Installation of large tiles (greater than 40x40), application on existing tiles or in places which are subject to frost or heavy traffic, Ultratech should also be applied on the back of the tiles (Combined method).
- Open time is 30 minutes. Install the tiles within this period with a firm pressure. Unfavourable climatic conditions (high temperature, low humidity, wind, etc.) can reduce this time to just a few minutes. If this period is exceeded, scratch and discard the mortar.
- In installation of large format tiles, lay the tiles horizontally and do not start to lay the upper row before the below one is cured. Leave an expansion joint at every 4-5 meter and use Kalepolymas to fill expansion joints.

### Post-Application Protection & Suggestions

- Clean tools and hands with water, and surfaces with a damp cloth.

- Dispose mortars of which the pot life is expired.
- Tiles installed with Ultratech must not be subject to water for at least 12 hours.
- Time required for grouting 2-3 hours.
- If joints can be grouted with Fugaflex, Fugaflex Rapid, Fugasim and Fugatech, the site may be open for use within 1 day.
- The surface should be protected from air stream during and after the application.
- It should not be applied in rainy weather and the applied surface should be protected from rain in 12 hours.
- The mortar should not be exposed to direct sunlight and the mixture should be made with warm water.
- Application temperature should be between +5°C and +35°C.
- Since contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Store in temperatures 5°C to 23°C in original sealed packaging.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- Powder component: 25 kg multi-ply paper bags.
- Liquid component: 7.5 lt drums.

# 1060 Technomax 30

## Two Component Highly Deformable Tile Adhesive (C2TE S2)



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	1st component: Grey powder 2nd component: White liquid
Shelf Life	12 months when stored in the original sealed packing in a dry place.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Mixing Ratio	5.75 liters liquid / 25 kg powder
Pot Life	5 hours
Grouting	8 hours on wall; 24 hours after on floor
Set to Light Foot Traffic	24 hours
Consumption	4.5 - 6.5 kg/m <sup>2</sup> (Combined Method)
<b>Performance Data</b>	
Slip (EN 1308)	≤ 0.5 mm
Open Time (EN 1346)	After 30 minutes ≥ 0.5 N/mm <sup>2</sup>
Tensile Adhesion Strength	
-Initial (after 28 days)	≥ 1 N/mm <sup>2</sup>
-after heat exposure	≥ 1 N/mm <sup>2</sup>
-after immersion in water	≥ 1 N/mm <sup>2</sup>
-after freeze/thaw cycles	≥ 1 N/mm <sup>2</sup>
Deformability	≥ 5mm - S2 Highly deformable
Service Temperature Range (after final cure)	(-40°C) - (+80°C)
Release Dangerous Substances	See SDS.
Reaction to Fire	A2s1d0

### Description

Two component, high performance, flexible, cementitious adhesive with reduced slip and extended open time for ceramic tiles and stones.

### Fields of Application

- Exterior bonding of ceramic, granite or porcelain ceramics sized 40x40 cm up to 30 meter and 60x60 cm up to 15 meters height.
- Interior and exterior floor and wall bonding of all types and sizes of ceramic tiles, natural stone, marble, granite, porcelain ceramic, clinker, cotto on cementitious renders, cementitious screeds and concrete.
- Bonding of tiles on places subject to heavy traffic like shopping malls, hospitals, schools.

### Properties

- Perfect adherence.
- Highly deformable, resistant to temperature changes.
- Resistant to all climatic conditions.
- Can even be applied on vertical surfaces even for bonding of heavy tiles without sagging.
- Extended open time.
- Easily trowelable.

### Preparation of Substrates

- Substrates must be sound, free from oil, grease, and sufficiently dry. Cementitious substrates must be cured.
- Cracked plasters mortar and cement residues must be scraped off the surface.
- The porous surfaces should be wetted and must be left to dry before application.
- Use Tamirart or Mastar 10 in case of uneven substrates to get a sound and flat surface. Use Gypsastar on anhydrite screeds.
- The surface should be primed with Kalekim Astar (Primer) depending on the absorbency of the substrate before application.
- Exposed concrete surfaces should be primed with Kalekim B-tone in order to increase the adhesion strength of tile adhesive.
- Wipe the back sides of tiles with water if dusty.

### Application

- Pour 25 kg of powder component into 5.75 liters of liquid component slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix. Do not add any additive which is not mentioned in the instructions for the application.
- Allow to stand for 5 - 10 minutes to mature. After 1-2 minutes remixing, the paste is ready for application.
- Consumption is 4.5-6.5 kg/m<sup>2</sup>.
- Consume the prepared mortar within 5 hours.
- Spread the mortar onto the substrate with a notched trowel of which notch size is appropriate to the tile dimension. To obtain a good adhesion first apply a thin coat of Technomax 30 with the flat side of the trowel, then notch with the toothed side of the trowel. Applications of large format tiles (greater than 40x40), on existing tiles or in places which are subject to frost or heavy traffic, Technomax 30 should be applied also on the back of the tiles (Combined method).
- Open time is 30 minutes. Install the tiles within this period with a firm pressure. Unfavourable climatic conditions (high temperature, low humidity, wind, etc.) can reduce this time to just a few minutes. If this period is exceeded, scratch and discard the mortar.
- In installation of large format tiles, lay the tiles horizontally and do not start to lay the upper row before the below one is cured. Leave an expansion joint at every 4 meters and use Kalepolymas to fill expansion joints.

### Post-Application Protection & Suggestions

- Clean tools and hands with water, and surfaces with a damp cloth.
- Dispose mortars of which the pot life is expired.
- Tiles installed with Technomax 30 must not be subject to water for at least 24 hours and must be protected from frost and strong sunlight for at least 5-7 days after installation.

- Time required for grouting on walls is 8 hours and on floors is 24 hours.
- Floors can be opened to light foot traffic after 24 hours.
- The surface should be protected from air stream during and after the application.
- It should not be applied in rainy weather and the applied surface should be protected from rain in 24 hours.
- The mortar should not be exposed to direct sunlight and the mixture should be made with warm water.
- Application temperature should be between +5°C and +35°C.
- Since contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid directly sunlight.
- Liquid component: Store between 5°C and 23°C in original sealed packaging.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- Powder component: 25 kg multi-ply paper bags.
- Liquid component: 5.75 lt drums.



Certificates of Quality  
EN 12004:2007+A1:2012, Class C2TE S2.  
C: Cementitious 2: Improved T: Reduced slip  
E: Extended open time S2: Highly deformable



# 1061 Rapitech

## Fast Setting Tile Adhesive (C2FT)



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Grey powder
Shelf Life	12 months when stored in the original sealed packing in dry place.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Mixing Ratio	6 - 7 liters water / 25 kg powder
Pot Life	45 minutes
Set to light traffic	6 hours
Consumption	3-5 kg/m <sup>2</sup>
<b>Performance Data</b>	
Slip (EN 1308)	≤ 0.5 mm
Open Time Tensile Adhesion Strength	After 10 minutes ≥ 0.5 N/mm <sup>2</sup>
Tensile Adhesion Strength (EN 1348)	
-early tensile adhesion strength	After 6 hours ≥ 0.5 N/mm <sup>2</sup>
-after heat exposure	≥ 1 N/mm <sup>2</sup>
-after immersion in water	≥ 1 N/mm <sup>2</sup>
-after freeze/thaw cycles	≥ 1 N/mm <sup>2</sup>
Service Temperature Range (after final cure)	(-40°C) - (+80°C)
Release of Dangerous Substances (EN 12004)	See SDS.
Reaction to Fire	A1

### Description

High performance, rapid setting and reduced slip cementitious adhesive for ceramic tiles and stones.

### Fields of Application

- Interior and exterior floor and wall bonding of all types and sizes of ceramic tiles, natural stones and decorative bricks on cementitious renders, cementitious screeds and concrete.
- Rapid tiling of places like public buildings, cafes, supermarkets, airports, that has to be ready for use within 1 day.
- Bonding of tiles on existing ceramic tiles.

### Properties

- Fast setting.
- Perfect adherence.
- Can be applied on vertical surfaces even for bonding of heavy tiles without sagging.
- Easily trowelable.

### Preparation of Substrates

- Substrates must be sound, free from oil, grease, and sufficiently dry. Cementitious substrates must be cured.
- Cracked plasters mortar and cement residues must be scraped off the surface.
- The porous surfaces should be wetted and must be left to dry before application.
- Use Tamirart or Mastar 10 in case of uneven substrates to get a sound and flat surface.
- The surface should be primed with Kalekim Astar (Primer) depending on the absorbency of the substrate before application.
- Exposed concrete surfaces should be primed with Kalekim B-tone in order to increase the adhesion strength of tile adhesive.
- Wipe the back sides of tiles with water if dusty.

### Application

- Pour Rapitech on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix. Do not add any additive which is not mentioned in the instructions for the application.
- Allow to stand for 5 minutes to mature. After 1-2 minutes remixing, the paste is ready for application.
- Consumption is 3-5 kg/m<sup>2</sup>.
- Consume the prepared mortar within 45 minutes.
- Spread the mortar onto the substrate with a notched trowel of which notch size is appropriate to the tile dimension to obtain a good adhesion, first apply a thin coat of Rapitech with the flat side of the trowel, then notch with the toothed side of the trowel. Applications of large format tiles (greater than 40x40), on existing tiles or in places which are subject to frost or heavy traffic, Rapitech should be applied also on the back of the tiles (Combined method).
- Open time is 10 minutes. Install the tiles within this period with a firm pressure. Unfavourable climatic conditions (high temperature, low humidity, wind, etc.) can reduce this time to just a few minutes. If this period is exceeded, scratch and discard the mortar.

### Post-Application Protection & Suggestions

- Clean tools and hands with water, and surfaces with a damp cloth.
- Dispose mortars of which the pot life is expired.
- Tiles installed with Rapitech must not be subject to water for at least 3-4 hours.
- If joints can be grouted with Fugaflex, Fugaflex Rapid, Fugasim and Fugatech, the site may be open for use within 1 day.

- The surface should be protected from air stream during and after the application.
- It should not be applied in rainy weather and the applied surface should be protected from rain in 12 hours.
- The mortar should not be exposed to direct sunlight and the mixture should be made with warm water.
- Application temperature should be between +5°C and +35°C.
- Since contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- 25 kg multi-ply paper bags.



Certificates of Quality  
EN 12004:2007+A1:2012, Class C2FT.  
C: Cementitious 2: Improved T: Reduced slip  
F: Fast Setting T: Reduced slip



# 1064 Rapitech Flex

Rapid Set Flexible Tile Adhesive (C2FT S1)



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Grey powder
Shelf Life	12 months when stored in the original sealed packing in a dry place.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Mixing Ratio	3.6 - 4.2 liters water / 20 kg powder
Pot Life	45 minutes
Set to light traffic	3 hours
Consumption	3 - 5 kg/m <sup>2</sup>
<b>Performance Data</b>	
Slip	≤ 0.5 mm
Open Time (EN 1346)	After 20 minutes ≥ 0.5 N/mm <sup>2</sup>
Tensile Adhesion Strength	
-early tensile adhesion strength	After 6 hours ≥ 0.5 N/mm <sup>2</sup>
-after heat exposure	≥ 1 N/mm <sup>2</sup>
-after immersion in water	≥ 1 N/mm <sup>2</sup>
-after freeze/thaw cycles	≥ 1 N/mm <sup>2</sup>
Service Temperature Range (after final cure)	(-40°C) - (+80°C)
Release Dangerous Substances	See SDS.
Reaction to Fire	A1

## Description

One-component, rapid set, high performance, cement-based adhesive mortar with reduced slip, specially formulated with enhanced flexibility and adhesion strength.

## Fields of Application

- Interior and exterior floor and wall bonding of all types and sizes of ceramic tiles, natural stones and decorative bricks on cementitious renders, cementitious screeds and concrete.
- Bonding of ceramic tiles in swimming pools, basins and any other wet places.
- Rapid tiling of places like public buildings, cafes, supermarkets, airports, that has to be ready for use within 1 day.
- Bonding of tiles on existing ceramic tile, granite.
- Bonding of tiles on places where sudden temperature changes occur like cold storage depots and underfloor heating systems.
- Bonding tiles on plywood.
- Floor and wall bonding of large format and thin tiles (3-5 mm) like Kalesinterflex.
- Arkası cam elyaf takviyeli ince seramiklerin yere döşenmesinde mükemmel sonuç verir.

## Properties

- Extra fast setting: sets within 3 hours.
- Perfect adherence.
- Can be applied on vertical surfaces even for bonding of heavy tiles without sagging.
- Easily trowelable.

## Preparation of Substrates

- Substrates must be sound, free from oil, grease, and sufficiently dry. Cementitious substrates must be cured.
- Cracked plasters mortar and cement residues must be scraped off the surface.
- The porous surfaces should be wetted and must be left to dry before application.

- Use Tamirart or Mastar 10 in case of uneven substrates to get a sound and flat surface.
- The surface should be primed with Kalekim Astar (Primer) depending on the absorbency of the substrate before application.
- Exposed concrete surfaces should be primed with Kalekim B-tone in order to increase the adhesion strength of tile adhesive.
- Wipe the back sides of tiles with water if dusty.

## Application

- Pour Rapitech Flex on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix. Do not add any additive which is not mentioned in the instructions for the application.
- Allow to stand for 5 minutes to mature. After 1-2 minutes remixing, the paste is ready for application.
- Consumption is 4.5-6.5 kg/m<sup>2</sup>.
- Consume the prepared mortar within 75 minutes.
- Spread the mortar onto the substrate with a notched trowel of which notch size is appropriate to the tile dimension to obtain a good adhesion, first apply a thin coat of Rapitech Flex with the flat side of the trowel, then notch with the toothed side of the trowel. Applications of large format tiles (greater than 40x40), on existing tiles or in places which are subject to frost or heavy traffic, Rapitech Flex should be applied also on the back of the tiles (Combined method).
- Open time is 20 minutes. Install the tiles within this period with a firm pressure. Unfavourable climatic conditions (high temperature, low humidity, wind, etc.) can reduce this time to just a few minutes. If this period is exceeded, scratch and discard the mortar.

## Post-Application Protection & Suggestions

- Clean tools and hands with water, and surfaces with a damp cloth.
- Dispose mortars of which the pot life is expired.
- Tiles installed with Rapitech Flex must not be subject to water for at least 3 hours.
- The surface should be protected from air stream during and after the application.
- It should not be applied in rainy weather and the applied surface should be protected from rain in 12 hours.
- The mortar should not be exposed to direct sunlight and the mixture should be made with warm water.
- Application temperature should be between +5°C and +35°C.
- Since contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.

## Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

## Packaging

- 20 kg multi-ply paper bags.



Certificates of Quality  
EN 12004:2007+A1:2012, Class C2FT, S1.  
C: Cementitious 2: Improved  
F: Fast Setting T: Reduced slip



# Profesyonel flex

Tile Adhesive (C2TE)



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Grey or White powder
Shelf Life	12 months when stored in the original sealed packing in a dry place.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Mixing Ratio	6.5-7 lt water / 25 kg grey powder 7-7,5 lt water / 25 kg white powder
Pot Life	4 hours
Grouting	8 hours on wall; 24 hours after on floor
Consumption	3-5 kg/m <sup>2</sup>
<b>Performance Data</b>	
Slip (EN 12004-2)	≤ 0.5 mm
Open Time (EN 12004-2)	After 30 minutes ≥ 0.5 N/mm <sup>2</sup>
Tensile Adhesion Strength (EN 12004-2)	
-Initial	After 6 hours ≥ 0.5 N/mm <sup>2</sup>
-after heat exposure	≥ 1 N/mm <sup>2</sup>
-after immersion in water	≥ 1 N/mm <sup>2</sup>
-after freeze/thaw cycles	≥ 1 N/mm <sup>2</sup>
Service Temperature Range (after final cure)	(-40°C) - (+80°C)
Release of Dangerous Substances (EN 12004)	See SDS.
Reaction to Fire	A1

## Description

High performance cementitious adhesive with extended open time and reduced slip.

## Fields of Application

- Interior and exterior floor and wall bonding of all types and sizes of ceramic tiles, granite, porcelain ceramic, cotto, clinker on cementitious renders, cementitious screeds and concrete.
- Bonding of tiles on existing ceramic tiles or marble.
- Bonding of small and medium sized tiles over underfloor heating installations, on walls of ovens, in cold storage depots where sudden temperature changes occur.
- Bonding of tiles on places subject to heavy traffic like shopping malls, hospitals, schools.

## Properties

- Perfect adherence.
- Can be applied on vertical surfaces even for bonding of heavy tiles without sagging.
- Easily trowelable.

## Preparation of Substrates

- Substrates must be sound, free from oil, grease, and sufficiently dry. Cementitious substrates must be cured.
- Cracked plasters mortar and cement residues must be scraped off the surface.
- The porous surfaces should be wetted and must be left to dry before application.
- Use Tamirart or Mastar 10 in case of uneven substrates to get a sound and flat surface.
- The surface should be primed with Kalekim Astar depending on the absorbency of the substrate before application.
- Exposed concrete surfaces should be primed with Kalekim B-tone in order to increase the adhesion strength of tile adhesive.

- In case of application on existing tile, first prime the surface with Kalekim Dolgulu Astar (Smooth Surface Primer).
- Wipe the back sides of tiles with water if dusty.

## Application

- Pour Profesyonel Flex on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix. Do not add any additive which is not mentioned in the instructions for the application.
- Allow to stand for 5 - 10 minutes to mature. After 1-2 minutes remixing, the paste is ready for application.
- Consumption is 3-5 kg/m<sup>2</sup>.
- Consume the prepared mortar within 4 hours.
- Spread the mortar onto the substrate with a notched trowel of which notch size is appropriate to the tile dimension. To obtain a good adhesion first apply a thin coat of Profesyonel Flex with the flat side of the trowel, then notch with the toothed side of the trowel.
- Open time is 30 minutes. Install the tiles within this period with a firm pressure. Unfavourable climatic conditions (high temperature, low humidity, wind, etc.) can reduce this time to just a few minutes. If this period is exceeded, scratch and discard the mortar.

## Post-Application Protect & Suggestions

- Clean tools and hands with water, and surfaces with a damp cloth.
- Dispose mortars of which the pot life is expired.
- Tiles installed with Profesyonel Flex must not be subject to water for at least 24 hours and must be protected from frost and strong sunlight for at least 5-7 days after installation.

- Time required for grouting on walls is 8 hours and on floors is 24 hours.
- Floors can be opened to light foot traffic after 24 hours.
- The surface should be protected from air stream during and after the application.
- It should not be applied in rainy weather and the applied surface should be protected from rain in 24 hours.
- The mortar should not be exposed to direct sunlight and the mixture should be made with warm water.
- Application temperature should be between +5°C and +35°C.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin.
- For further information refer to the safety data sheet.

## Storage

- Packages should be kept dry and cool at between +5°C and +35°C. In moisture free conditions avoid direct sunlight.
- Package should be protected for water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

## Packaging

- 25 kg multi-ply paper bags.



Certificates of Quality  
EN 12004:2007+A1:2012, Class C2TE  
C: Cementitious 2: Improved adhesive  
T: Reduce slip E: Extended Open Time





# 1062 Technopool

## Tile Adhesive for Waterproofing Systems (C2TE S2)



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Grey or White powder	
Shelf Life	12 months when stored in the original sealed packing in a dry place.	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Mixing Ratio	5.75 – 6.25 liters water / 25 kg grey powder 6.25 – 6.75 liters water / 25 kg white powder	
Pot Life	6 hours	
Grouting	8 hours on wall; 24 hours after on floor	
Consumption	3-5 kg/m <sup>2</sup>	
<b>Performance Data</b>		
Slip	≤ 0.5 mm	
Open Time (EN 1346)	After 30 minutes ≥ 0.5 N/mm <sup>2</sup>	
Tensile Adhesion Strength		
-Initial (after 28 days)	≥ 1 N/mm <sup>2</sup>	
-after heat exposure	≥ 1 N/mm <sup>2</sup>	
-after immersion in water	≥ 1 N/mm <sup>2</sup>	
-after freeze/thaw cycles	≥ 1 N/mm <sup>2</sup>	
Deformability	≥ 5mm - S2 Highly deformable	
Service Temperature Range (after final cure)	(-40°C) - (+80°C)	
Release Dangerous Substances	See SDS.	
Reaction to Fire	A2	

### Description

High performance, flexible, water resistant cementitious adhesive with extended open time, reduced slip and contributes to waterproofing for ceramic tiles and stones.

### Fields of Application

- Interior and exterior floor and wall bonding of all types and sizes of ceramic tiles, natural stone, marble, granite, porcelain ceramic, clinker, cotto on cementitious renders, cementitious screeds and concrete.
- Bonding of all types and sizes of tiles and glass mosaics in swimming pools, Turkish baths, water tanks, basins and any other wet place.
- Bonding of ceramic tiles or granite on existing granite, ceramic, marble.
- Bonding of tiles on places where sudden temperature changes occur like cold storage depots and over floor heat installations.
- Bonding of tiles on places subject to heavy traffic like shopping malls, hospitals, schools.

### Properties

- Perfect adherence.
- Highly deformable, resistant to temperature changes.
- Waterproof.
- Extended open time.
- Can be applied on vertical surfaces even for bonding of heavy tiles without sagging.
- Easily trowelable.

### Preparation of Substrates

- Substrates must be sound, free from oil, grease, and sufficiently dry. Cementitious substrates must be cured.
- Cracked plasters mortar and cement residues must be scraped off the surface.
- The porous surfaces should be wetted and must be left to dry before application.
- Use Tamirart or Mastar 10 in case of uneven substrates to get a sound and flat surface. Use Gypsastar on anhydrite screeds.

- The surface should be primed with Kalekim Astar (Primer) depending on the absorbency of the substrate before application.
- Exposed concrete surfaces should be primed with Kalekim B-tone in order to increase the adhesion strength of tile adhesive.
- Wipe the back sides of tiles with water if dusty.

### Application

- Pour Technopool on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix. Do not add any additive which is not mentioned in the instructions for the application.
- Allow to stand for 5 minutes to mature. After 1-2 minutes remixing, the paste is ready for application.
- Consumption is 3-5 kg/m<sup>2</sup>.
- Consume the prepared mortar within 6 hours.
- Spread the mortar onto the substrate with a notched trowel of which notch size is appropriate to the tile dimension. To obtain a good adhesion first apply a thin coat of Technopool with the flat side of the trowel, then notch with the toothed side of the trowel. Application of large tiles (greater than 40x40), on existing tiles or in places which are subject to frost or heavy traffic, Technopool should also be applied on the back of the tiles (Combined method).
- Open time is 30 minutes. Install the tiles within this period with a firm pressure. Unfavourable climatic conditions (high temperature, low humidity, wind, etc.) can reduce this time to just a few minutes. If this period is exceeded, scratch and discard the mortar.

### Post-Application Protection & Suggestions

- Clean tools and hands with water, and surfaces with a damp cloth.
- Dispose mortars of which the pot life is expired.

- Tiles installed with Technopool must not be subject to water for at least 24 hours and must be protected from frost and strong sunlight for at least 5-7 days after installation.
- Time required for grouting on walls is 8 hours and on floors is 24 hours.
- Floors can be opened to light foot traffic after 24 hours.
- The surface should be protected from air stream during and after the application.
- It should not be applied in rainy weather and the applied surface should be protected from rain in 24 hours.
- The mortar should not be exposed to direct sunlight and the mixture should be made with warm water.
- Application temperature should be between +5°C and +35°C.
- Since contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- 25 kg multi-ply paper bags.



Certificates of Quality  
EN 12004:2007+A1:2012, Class C2TE, S2  
C: Cementitious 2: Improved T: Reduce slip  
E: Extended Open Time S2: Highly Deformable



# 1066 Technofull

## Fast Setting Pourable Tile Adhesive (C2FE)



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Grey powder	
Shelf Life	12 months when stored in the original sealed packing in dry place.	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Mixing Ratio	4.6 - 5 lt water / 20 kg powder	
Pot Life	1 hour	
Grouting	After 3 - 4 hours	
Consumption	3-5 kg/m <sup>2</sup>	
<b>Performance Data</b>		
Open Time Tensile Adhesion Strength	After 30 minutes ≥ 0.5 N/mm <sup>2</sup>	
-early Tensile Adhesion Strength	After 6 hours ≥ 0.5 N/mm <sup>2</sup>	
Tensile Adhesion Strength (EN 1348)		
-Initial (after 28 days)	≥ 1 N/mm <sup>2</sup>	
-after heat exposure	≥ 1 N/mm <sup>2</sup>	
-after immersion in water	≥ 1 N/mm <sup>2</sup>	
-after freeze/thaw cycles	≥ 1 N/mm <sup>2</sup>	
Service Temperature Range (after final cure)	(-40°C) - (+80°C)	
Release of Dangerous Substances (EN 12004)	See SDS.	
Reaction to Fire	A1	

### Description

High performance, full contact & fast setting, flexible, cementitious adhesive, with extended open time for large format ceramic tiles and stones.

### Fields of Application

- Interior & exterior floor bonding of medium and large sizes of ceramic tiles, granite ceramic, porcelain ceramic, cotto, clinker, marble without the need of backbuttering.
- Bonding on floors over underfloor heating installations.
- Bonding on the floors of places subject to heavy traffic like shopping malls, hospitals, schools.
- Rapid tiling of places like public buildings, cafes, supermarkets, airports, that has to be ready for use within 1 day.

### Properties

- Less consumption, labor-cost effective.
- 100 % coating on the back of the tiles without applying any pressure.
- Fast setting.
- Perfect adherence.
- Semi-fluid consistency, easily trowelable, long open time.
- High flexibility.
- Resistant to temperature changes.

### Preparation of Substrates

- Substrates must be sound, free from oil, grease, and sufficiently dry. Cementitious substrates must be cured.
- Cracked plasters mortar and cement residues must be scraped off the surface.
- The porous surfaces should be wetted and must be left to dry before application.
- Use Tamirart or Mastar 10 in case of uneven substrates to get a sound and flat surface.
- The surface should be primed with Kalekim Astar (Primer) depending on the absorbency of the substrate before application.

- Exposed concrete surfaces should be primed with Kalekim B-tone in order to increase the adhesion strength of tile adhesive.
- Wipe the back sides of tiles with water if dusty.

### Application

- Pour Technofull on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix. Do not add any additive which is not mentioned in the instructions for the application.
- Allow to stand for 5-10 minutes to mature. After 1-2 minutes remixing, the paste is ready for application.
- Consumption is 3-5 kg/m<sup>2</sup>.
- Consume the prepared mortar within 1 hours.
- Spread the mortar onto the substrate with a notched trowel of which notch size is appropriate to the tile dimension.
- Suitable for bonding of medium and large sizes of tiles on the floors of places subject to heavy traffic without the need of backbuttering.
- Open time is 30 minutes. Install the tiles within this period with a firm pressure. Unfavourable climatic conditions (high temperature, low humidity, wind, etc.) can reduce this time to just a few minutes. If this period is exceeded, scratch and discard the mortar.

### Post-Application Protection & Suggestions

- Clean tools and hands with water, and surfaces with a damp cloth.
- Dispose mortars of which the pot life is expired.
- Tiles installed with Technofull must not be subject to water for at least 3-4 hours.
- Time required for grouting 3-4 hours.

- If joints are grouted with Fugaflex, Fugaflex Rapid, Fugasim and Fugatech, the site may be open for use within 1 day.
- The surface should be protected from air stream during and after the application.
- It should not be applied in rainy weather and the applied surface should be protected from rain in 12 hours.
- The mortar should not be exposed to direct sunlight and the mixture should be made with warm water.
- Application temperature should be between +5°C and +35°C.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.

### Storage

- Package should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- 20 kg multi-ply paper bags.



Certificates of Quality  
EN 12004:2007+A1:2012, Class C2FE  
C: Cementitious 2: Improved F: Fast Setting  
E: Extended open time



# 1069 Technolight

Lightweight, Highly Deformable Tile Adhesive (C2TE S2)



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Grey powder
Shelf Life	12 months when stored in the original sealed packing in a dry place.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Mixing Ratio	6 - 6.5 lt water/15 kg powder
Pot Life	6 hours
Grouting	8 hours on wall; 24 hours after on floor
Consumption	1.5-2.5 kg/m <sup>2</sup>
<b>Performance Data</b>	
Slip	≤ 0.5 mm
Open Time (EN 1346)	After 30 minutes ≥ 0.5 N/mm <sup>2</sup>
Tensile Adhesion Strength	
-Initial (after 28 days)	≥ 1 N/mm <sup>2</sup>
-after heat exposure	≥ 1 N/mm <sup>2</sup>
-after immersion in water	≥ 1 N/mm <sup>2</sup>
-after freeze/thaw cycles	≥ 1 N/mm <sup>2</sup>
Deformability	≥ 5mm - S2 Highly deformable
Service Temperature Range (after final cure)	(-40°C) - (+80°C)
Release Dangerous Substances	See SDS.
Reaction to Fire	Bs1d0

## Description

High performance, flexible, lightweight, cementitious tile adhesive including rubber and nano-technological additives with extended open time and reduced slip.

## Fields of Application

- Interior and exterior floor and wall bonding of all types and sizes of ceramic tiles, natural stone, marble, granite, porcelain ceramic, clinker, cotto on cementitious renders, cementitious screeds and concrete.
- Bonding of tiles on existing ceramic tile, granite.
- Bonding of tiles on painted walls and gypsum.
- Bonding of ceramic tiles in swimming pools, basins and any other wet places.
- Bonding of tiles on terraces and balconies.
- Bonding of tiles on places where sudden temperature changes occur like cold storage depots, on walls of ovens and over underfloor heating installations.
- Bonding of tiles on places that are subject to heavy traffic like shopping malls, hospitals, schools.

## Properties

- Approximately 40% less consumption than standard adhesives. Thus, accomplish the same job with a 15 kg package instead of 25 kg standard adhesive.
- High flexibility with rubber fillers.
- With its nano-technological raw materials, it has high adhesion strength.
- Easy to carry with lightweight and package with handles.
- Highly deformable, resistant to temperature changes.
- Can even be applied on vertical surfaces for bonding of heavy tiles without sagging.
- Extended open time.
- Easily trowelable.

## Preparation of Substrates

- Substrates must be sound, free from oil, grease, and sufficiently dry. Cementitious substrates must be cured.
- Cracked plasters mortar and cement residues must be scraped off the surface.
- The porous surfaces should be wetted and must be left to dry before application

- Use Tamirart or Mastar 10 in case of uneven substrates to get a sound and flat surface.
- The surface should be primed with Kalekim Astar (Primer) depending on the absorbency of the substrate before application.
- Exposed concrete surfaces should be primed with Kalekim B-tone in order to increase the adhesion strength of tile adhesive.
- Wipe the back sides of tiles with water if dusty.

## Application

- Pour Technolight on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix. Do not add any additive which is not mentioned in the instructions for the application.
- Allow to stand for 5-10 minutes to mature. After 1-2 minutes remixing, the paste is ready for application.
- Consumption is 1.5-2.5 kg/m<sup>2</sup>.
- Consume the prepared mortar within 6 hours.
- Spread the mortar onto the substrate with a notched trowel of which notch size is appropriate to the tile dimension. To obtain a good adhesion first apply a thin coat of Technolight with the flat side of the trowel, then notch with the toothed side of the trowel.
- Application of large tiles (greater than 40x40), on existing tiles or which are subject to frost or heavy traffic, Technolight should also be applied on the back of the tiles (combined method).
- Open time is 30 minutes. Install the tiles within this period with a firm pressure. Unfavourable climatic conditions (high temperature, low humidity, wind, etc.) can reduce this time to just a few minutes. If this period is exceeded, scratch and discard the mortar.

## Post-Application Protection & Suggestions

- Clean tools and hands with water, and surfaces with a damp cloth.
- Dispose mortars of which the pot life is expired.

- Tiles installed with Technolight must not be subject to water for at least 24 hours and must be protected from frost and strong sunlight for at least 5-7 days after installation.
- Time required for grouting on walls is 8 hours and on floors is 24 hours.
- Floors can be opened to light foot traffic after 24 hours.
- The surface should be protected from air stream during and after the application.
- It should not be applied in rainy weather and the applied surface should be protected from rain in 24 hours.
- The mortar should not be exposed to direct sunlight and the mixture should be made with warm water.
- Application temperature should be between +5°C and +35°C.
- Since contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.

## Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

## Packaging

- 15 kg multi-ply paper bags with handles.



Certificates of Quality  
EN 12004:2007+A1:2012, Class C2TE, S2.  
C: Cementitious 2: Improved T: Reduced Slip  
E: Extended open time S2: Highly Deformable



# 1230 Supertech

Ready to Use Tile Adhesive (D2TE)



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	White paste
Shelf Life	12 months when stored in the original sealed packing in dry place.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Grouting	24 - 48 hours
Consumption	3-5 kg/m <sup>2</sup>
<b>Performance Data</b>	
Slip	≤ 0.5 mm
Open Time Tensile Adhesion Strength	After 30 minutes ≥ 0.5 N/mm <sup>2</sup>
Shear Adhesion Strength	
-Initial (after 28 days)	≥ 1 N/mm <sup>2</sup>
-after heat exposure	≥ 1 N/mm <sup>2</sup>
-after immersion in water	≥ 0.5 N/mm <sup>2</sup>
-at elevated temperatures	≥ 1 N/mm <sup>2</sup>
Service Temperature Range (after final cure)	(-30°C) - (+80°C)
Release of Dangerous Substances (EN 12004)	See SDS.
Reaction to Fire	Bs1d0

## Description

Ready to use high performance emulsion polymer based tile adhesive with extended open time and no vertical slip for ceramic tiles and stones.

## Fields of Application

- Easy and clean application for interior wall and floor bonding of all types and sizes of ceramic tiles even on deformable surfaces.
- Bonding of tiles on gypsum panels and painted walls.
- Interior bonding of insulating and decorative ceiling materials.

## Properties

- Ready to use.
- Easily trowelable.
- Perfect adherence.
- Highly deformable, resistant to normal vibrations which building materials are subject to.
- Extended open time.
- Allows installation of tiles from top towards bottom.

## Preparation of Substrates

- Substrates must be sound, free from oil, grease, and sufficiently dry. Cementitious substrates must be cured.
- Cracked plasters mortar and cement residues must be scraped off the surface.
- The porous surfaces should be wetted and must be left to dry before application.
- Use Tamirart or Mastar 10 in case of uneven substrates to get a sound and flat surface.
- Wipe the back sides of tiles with water if dusty.

## Application

- Mix Supertech thoroughly before application.
- Spread Supertech onto the substrate with notched trowel of which notch size is appropriate to the tile dimension. To obtain a good adhesion first apply a thin coat of Supertech with the flat side of the trowel, then notch with the toothed side of the trowel.
- Consumption is 3-5 kg/m<sup>2</sup>.
- Open time is 30 minutes. Install the tiles within this period with a firm pressure. Unfavourable climatic conditions (high temperature, low humidity, wind, etc.) can reduce this time to just a few minutes. If this period exceeds, scratch and discard the paste.
- Insulation panels and decorative ceiling tiles can be applied using either spot-bonding or full bonding method.

## Post-Application Protection & Suggestions

- Dispose mortar of which pot life is expired.
- Clean tools and hands with water, surfaces with a damp cloth.
- Tiles installed with Supertech must not be subject to water for at least 10 days.
- While bonding the tiles on existing tiles, curing time may increase up to 1-2 weeks. If one of the surfaces is absorbent, this time can be shortened.
- Time required for grouting is 24-48 hours.
- For bonding of large size and low water absorbent coating materials, cement based adhesives are suggested.
- Application temperature should be between +5°C and +35°C.

- Although Supertech is non hazardous, use normal precautions for handling chemical products. For further information refer to the safety data sheet.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.

## Storage

- Packages should be kept dry and cool at between +5°C and +23°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

## Packaging

- 1,5 kg, 5 kg, 15 kg pail.



Certificates of Quality  
EN 12004:2007+A1:2012, Class D2TE.  
D: Dispersion based 2: Improved  
T: Reduced Slip E: Extended Open Time



# 1301 Epotech A

## Epoxy Adhesive (R2T)



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Component A: White paste Component B: Green transparent liquid Component C: Yellow powder	
Shelf Life (Component A / B / C)	12 months when stored in the original sealed packing in a dry place.	
<b>Application Data</b>		
Application Temperature Range	(+10°C) – (+27°C)	
Pot Life	60 minutes at 23°C	
Period of Grout Filling	12 - 48 hours (Depending on the temperature)	
Set to Foot Traffic	24 hours	
Consumption	3-4 kg/m <sup>2</sup>	
<b>Performance Data</b>		
Slip	≤ 0.5 mm	
Open Time Tensile Adhesion Strength	After 30 minutes ≥ 0.5 N/mm <sup>2</sup>	
Shear Adhesion Strength		
-Initial	≥ 15 N/mm <sup>2</sup>	
-after immersion in water	≥ 15 N/mm <sup>2</sup>	
-after thermal shock	≥ 10 N/mm <sup>2</sup>	
-after freeze/thaw cycles	≥ 1 N/mm <sup>2</sup>	
Density	2.00 kg /m <sup>3</sup>	
Service Temperature Range (after final cure)	(-20°C) - (+80°C)	
Release Dangerous Substances	See SDS.	
Reaction to Fire	Bs1d0	

### Description

Three-component, solvent-free, epoxy-resin-based, chemical resistant waterproofing adhesive.

### Fields of Application

- Interior and exterior floor and wall bonding of surface coating materials such as Antiasit porcelain tiles, granite, marble etc.
- In industrial places where mechanical strength is required.
- Bonding of metal profiles on concrete.
- Bonding of concrete, stone, metal, wood, PVC pieces on each other and in between.

### Properties

- Excellent bonding.
- Highly resistant to heavy traffic.
- Easily trowelable.
- Can be applied on vertical surfaces even for bonding of heavy tiles without sagging.
- Excellent mechanical resistance.
- Resistant to freeze-thaw cycles.
- Easy to apply with 60 minutes of pot life at 23°C.

### Preparation of Substrates

- Substrates must be sound free from oil, grease, and sufficiently dry. Cementitious substrates must be cured. Use Tamirart or Mastar 10 in case of any loose and uneven substrates to get sound and flat surface.
- Cracked plasters mortar and cement residues must be scraped off the surface.
- The porous surfaces should be wetted and must be left to dry before application.
- The surface must be dry and moisture content should not exceed 5%.
- At low temperatures the viscosity of the material increases. Therefore keep the material at room temperature (23±3°C) for one day before use.

### Application

- Before starting the application wear protective, gloves, goggles or mask.
- First remove B and C components from the lower pail. Then pour the component A into the empty pail completely without leaving any residuals. Next, pour component B completely onto component A and mix with a low speed mixer.
- Right after; pour component C into the mixture completely without leaving any residuals. Mix with a low speed mixer to obtain a homogenous mixture.
- Never add any additives other than stated in the instructions for application.
- Apply the material within its pot life which is 60 minutes. Dispose the material of which pot life is expired.
- Spread Epotech A by a notched trowel appropriate to the dimension. To obtain a good adhesion, first apply a thin coat with the flat side of the trowel, then notch with the toothed side. Install the tiles with a firm pressure.

### Post-Application Protection & Suggestions

- Clean tools right after the application. When materials are hardened, cleaning can only be done by mechanical means.
- Remove excess product from the tile surface rapidly because once hardened it will have to be removed mechanically.
- Dispose mortars of which pot life is expired.
- Ventilate the work area during the application.
- Do not mix the product with water or solvents.
- Tiles installed with Epotech A must not be subject to water for at least 24 hours.
- Depending on the temperature time required for grouting 12 - 48 hours.
- The surface should be protected from air stream during and after the application.

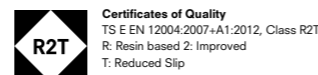
- It should not be applied in rainy weather and the applied surface should be protected from rain in 24 hours.
- Application temperature should be between +10°C and +27°C.
- In case of skin and eye contact wash with plenty of water. For further information refer to the safety data sheet.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- In 5 kg units and plastic pails (3 component).
- Component A: 2.5 kg
- Component B: 0.25 kg
- Component C: 2.25 kg



# 1302 Epotech W

## Epoxy Based Adhesive (R2T)



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Component A: Whitish-beige paste Component B: Green transparent liquid Component C: Whitish powder	
Shelf Life (Component A / B / C)	12 months when stored in the original sealed packing in a dry place.	
<b>Application Data</b>		
Application Temperature Range	(+10°C) – (+27°C)	
Pot Life	60 minutes at 23°C	
Period of Grout Filling	12 - 48 hours (Depending on the temperature)	
Ready for Use (Max. Chemical Resistance)	7 days	
Set to Foot Traffic	24 hours	
Consumption	3 - 4 kg/m <sup>2</sup> (As an adhesive) 1.0 - 1.5 kg/m <sup>2</sup> (For bonding of waterproofing tape; Kalekim Dilatation Tape)	
<b>Performance Data</b>		
Slip (EN 12004-2)	≤ 0.5 mm	
Open Time Tensile Adhesion Strength	After 30 minutes ≥ 0.5 N/mm <sup>2</sup>	
Shear Adhesion Strength		
-Initial	≥ 15 N/mm <sup>2</sup>	
-after immersion in water	≥ 15 N/mm <sup>2</sup>	
-after thermal shock	≥ 10 N/mm <sup>2</sup>	
Flexural Strength	≥ 30 N/mm <sup>2</sup>	
Density	2.00 kg /m <sup>3</sup>	
Compressive Strength	≥ 45 N/mm <sup>2</sup>	
Service Temperature Range (after final cure)	(-20°C) – (+80°C)	
Release Dangerous Substances	See SDS.	
Reaction to Fire	Bs2d0	

### Description

Three-component, solvent-free, epoxy-resin-based, chemical resistant waterproofing adhesive.

### Fields of Application

- Bonding of Kalekim Dilatation Tape.
- Bonding of metal profiles on concrete.
- Bonding of concrete, stone, metal, wood.
- Bonding of floor and wall tiles, granite and marble plates.

### Properties

- Excellent bonding.
- Highly resistant to heavy traffic.
- Easily trowelable.
- Excellent chemical and mechanical resistance.
- Resistant to freeze-thaw cycles.
- Easy to apply with 60 minutes of pot life at 25°C.

### Preparation of Substrates

- Substrates must be sound free from oil, grease, and sufficiently dry. Cementitious substrates must be cured. Use Tamirart or Mastar 10 in case of any loose and uneven substrates to get sound and flat surface.
- Cracked plasters mortar and cement residues must be scraped off the surface.
- The porous surfaces should be wetted and must be left to dry before application.
- The surface must be dry and moisture content should not exceed 5%.
- At low temperatures the viscosity of the material increases. Therefore keep the material at room temperature (23±3°C) for one day before use.

### Application

- First empty the pail that contains the components B and C into the top pail and mix homogeneously.

Then pour the mixture into component A, completely without leaving any residuals. Stir with a low speed electrical stirrer until the mixture becomes homogeneous.

- Spread the material by a notched trowel appropriate to the dimension. To obtain a good adhesion, first apply a thin coat with the flat side of the trowel, then notch with the toothed side.
- Install the tiles with a firm pressure.
- Apply the material within its pot life which is 60 minutes.

### Post-Application Protection & Suggestions

- Clean tools right after the application. When materials are hardened, cleaning can only be done by mechanical means.
- Remove excess product from the tile surface rapidly because once hardened it will have to be removed mechanically.
- Dispose mortars of which pot life is expired.
- Ventilate the work area during the application.
- Do not mix the product with water or solvents.
- Tiles installed with Epotech W must not be subject to water for at least 24 hours.
- Depending on the temperature time required for grouting 12 - 48 hours.
- Do not walk on the floor 24 hours after application.
- The surface should be protected from air stream during and after the application.
- It should not be applied in rainy weather and the applied surface should be protected from rain in 24 hours.
- Application temperature should be between +10°C and +27°C.

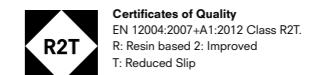
- In case of skin and eye contact wash with plenty of water. For further information refer to the safety data sheet.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

In 5 kg units and plastic pails (3 component).  
Component A: 4.0 kg  
Component B: 0.375 kg  
Component C: 0.625 kg





# 6004 Kalekim Level Joker

## Facade Cladding Level & Support Tool



### Description

Kalekim Level Joker equals the level differences in the bonding of cladding materials on metal carriers of interior and exterior cladding systems, and safely supports the cladding materials until the adhesive gains sufficient strength. It is a support and leveling apparatus that saves labor and time by adjusting the horizontal joint width of coating materials, and provides easy, practical and fast application.

### Properties

- Used in bonding systems of coating materials such as ceramic tile, granite ceramic tile, porcelain tile, Kalesinterflex, compact laminate etc. on interior and exterior cladding systems.
- Suitable for coating materials with a thickness of 4-16 mm. It can also be adapted to materials thicker than 16 mm, if required.
- It is possible to use with different joint widths; width can be adjusted.
- Kalekim Level Joker keeps the coating materials securely on the metal carriers until Technobond PU or Technobond MS reach sufficient adhesion strength,

- It removes the level differences on the front surfaces of the coating materials and provides a smooth application by equaling the levels. Thus, the total structure of the facade is protected against external factors.
- Does not damage the metal carriers and coating materials during application.
- It makes fixing of especially large size tiles to the facade easier.
- Easy to apply, saves time and labor.
- Provides a practical, easy, fast and safe solution.
- Environment friendly and does not create plastic waste.
- Reusable and economical.

### Consumption

4 pieces Level Joker / 1 m<sup>2</sup>  
Consumption varies depending on the dimensions of the facade coating material, the distance of the vertical axis of the metal carrier construction, the number of daily workers and the time the adhesive reaches the desired strength. These information should be taken into account when calculating the consumption and the facade cladding project should be analyzed beforehand.

### Storage

Should be stored in a dry area with an ambient temperature below 50°C. Changes in color and physical properties may be observed in products that are not stored under appropriate conditions.

### Package

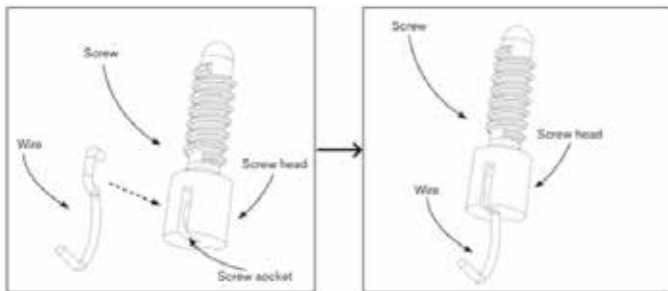
50 units / 1 polyethylene bag  
6 polyethylene bag=300 units / Box  
1 unit of Joker: Wire, Screw, Body, Wing Nut, Joint Adjuster

### 1 polyethylene bag

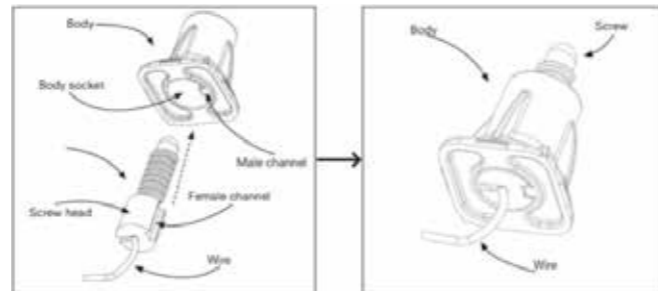
**Wire:** 50 pieces  
**Screw:** 50 pieces  
**Body:** 50 pieces  
**Wing Nut:** 50 pieces  
**Joint Adjuster:** 50 pieces

### Application

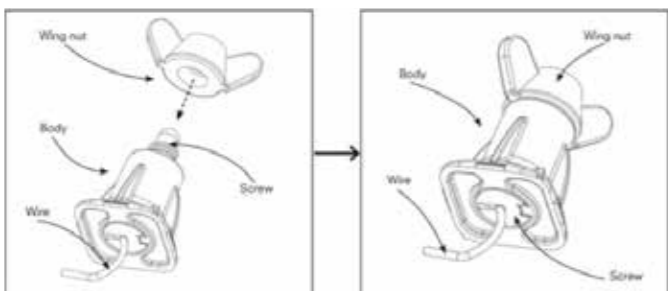
1- The wire and screw are mounted by placing the wire into the slot in the screw head in the direction of the arrow.



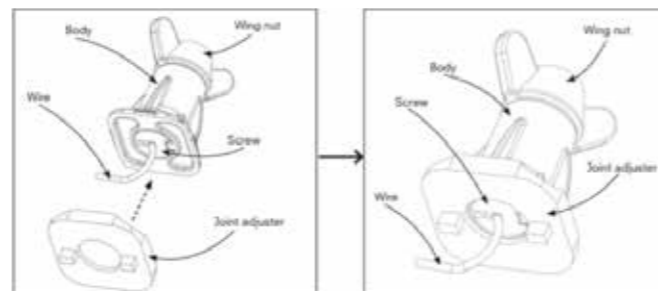
2- Already mounted screw and wire are placed in the slot of the body, conjuncting the female channel and the male channel.



3- The wing nut is mounted on the screw.

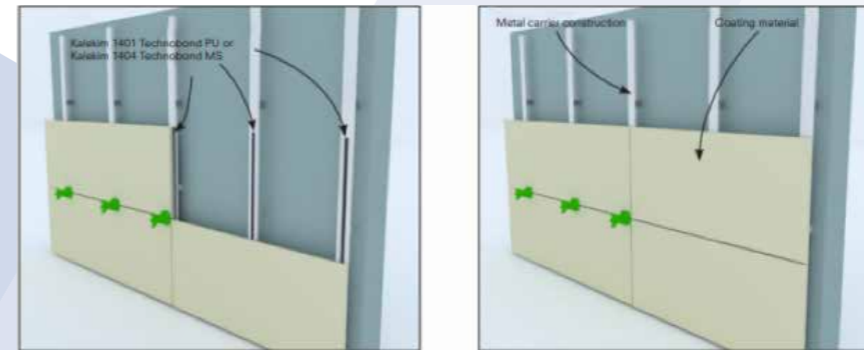


4- Finally, the joint adjuster is placed under the body.

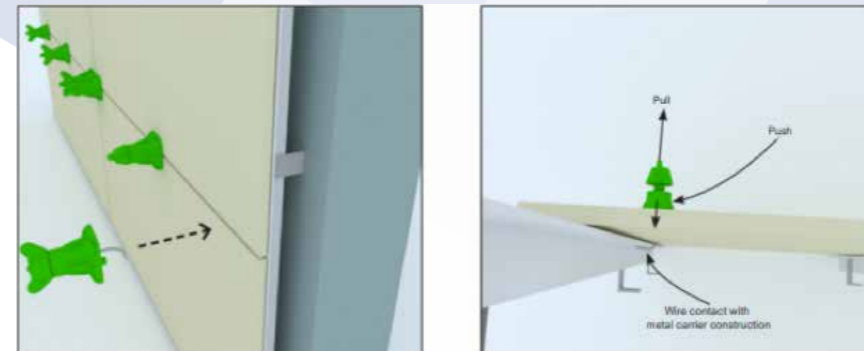


### Application Stages

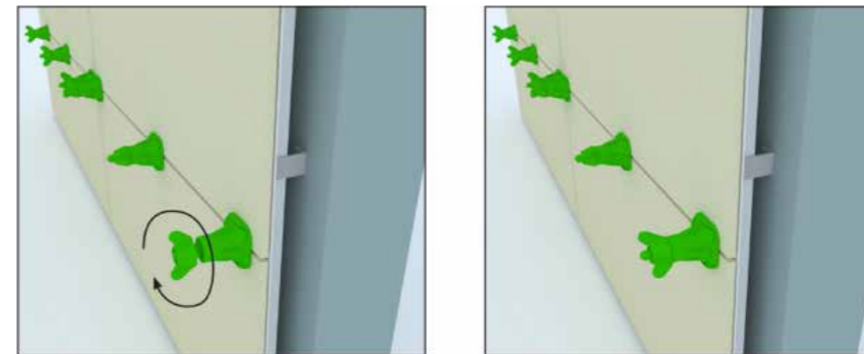
1- Kalekim Technobond PU or Technobond MS is applied on the metal carrier construction and the coating material is placed on the adhesive.



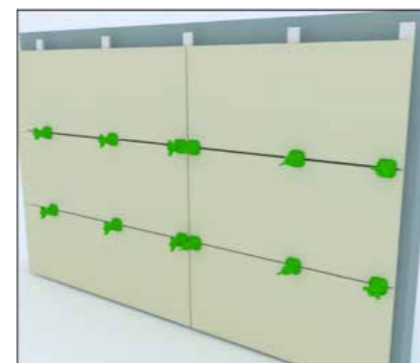
2- Kalekim Level Joker is placed into the horizontal joint gaps of coating materials and its contact with the metal carrier construction is ensured.



3- Attach the body with one hand, and with the other hand turn the wing nut in the closing direction. Ensure that Kalekim Level Joker is tightened well.



4- Kalekim Level Joker should be used at every point corresponding to the metal carrier construction. Remove Kalekim Level Joker when Kalekim Technobond PU or Technobond MS adhesive gains enough strength. Once removed, the tool can be used again in the following applications.



# Tile Adhesives Product Selection Chart

INTERIOR						INTERIOR						
Wall	Ceramic Tile, Glass Mosaic				Porcelain Tile		Clinker		Natural Stone, Marble, Granite, Cotto			
	Karo Ebadı ≤ 1600 cm <sup>2</sup>	Karo Ebadı ≤ 2000 cm <sup>2</sup>	Karo Ebadı ≤ 3600 cm <sup>2</sup>	3600 cm <sup>2</sup> ≤ Karo Ebadı ≤ 5000 cm <sup>2</sup>	Karo Ebadı ≤ 1600 cm <sup>2</sup>	Karo Ebadı ≤ 2000 cm <sup>2</sup>	Karo Ebadı ≤ 3600 cm <sup>2</sup>	3600 cm <sup>2</sup> ≤ Karo Ebadı ≤ 5000 cm <sup>2</sup>	Karo Ebadı ≤ 1600 cm <sup>2</sup>	Karo Ebadı ≤ 2000 cm <sup>2</sup>	Karo Ebadı ≤ 3600 cm <sup>2</sup>	3600 cm <sup>2</sup> ≤ Karo Ebadı ≤ 5000 cm <sup>2</sup>
<b>Cementitious Render / Concrete</b>	Kalekim, Kalekimbeyaz, Kalekimtozumaz, / <b>Supertech</b>	Profesyonel, Rapitech*, Rapitech Flex, Granitech	Rapitech*, Rapitech Flex, Technoflex	Technoflex, Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech A, Epotech W	<b>Supertech</b> / Profesyonel	Rapitech*, Rapitech Flex, Granitech, Technoflex	Rapitech*, Rapitech Flex, Granitech, Technoflex	Technoflex, Rapitech Flex, Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W	Profesyonel / <b>Supertech</b>	Rapitech*, Rapitech Flex, Granitech, Technoflex		Technoflex, Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W
<b>Gypsum Plaster / Gypsum Board (*)</b>	<b>Supertech</b> / Technoflex		Technoflex, Technopool, Technolight, Ultratech*, Technomax 30	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech A, Epotech W	<b>Supertech</b>	Technoflex	Technoflex, Technopool, Technolight, Ultratech*, Technomax 30	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W	<b>Supertech</b>	Technoflex	Technoflex, Technopool, Technolight, Ultratech*, Technomax 30	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W
<b>Existing Ceramic (**)</b>	Kalekim, Kalekimbeyaz, Kalekimtozumaz, Profesyonel	Rapitech*, Rapitech Flex, Granitech, Technoflex	Technoflex, Rapitech Flex, Technopool, Technolight, Ultratech*, Technomax 30	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech A, Epotech W	Profesyonel	Rapitech*, Rapitech Flex, Granitech, Technoflex,	Technoflex, Technopool, Technolight, Ultratech*, Technomax 30	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W	Rapitech*, Rapitech Flex, Granitech, Technoflex		Technoflex, Rapitech Flex, Technopool, Technolight, Ultratech*, Technomax 30	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W
<b>Water Based Painted Surfaces</b>	<b>Supertech</b> / Kalekim, Kalekimbeyaz, Kalekimtozumaz, Profesyonel	Rapitech*, Rapitech Flex, Granitech, Technoflex	Technoflex, Technopool, Technolight, Ultratech*, Technomax 30	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech A, Epotech W	Rapitech*, Rapitech Flex, Granitech, Technoflex		Technoflex, Rapitech Flex, Technopool, Technolight, Ultratech*, Technomax 30	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W	Rapitech*, Rapitech Flex, Granitech, Technoflex		Technoflex, Rapitech Flex, Technopool, Technolight, Ultratech*, Technomax 30	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W
<b>Surfaces Waterproofed with (İzolatex Plus / İzolatex UV / Elastikor)</b>	Rapitech*, Granitech, Technoflex		Technoflex, Technopool, Technolight, Ultratech*, Technomax 30,	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W	Technoflex		Technoflex, Technopool, Technolight, Ultratech*, Technomax 30	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W	Technoflex		Technoflex, Technopool, Technolight, Ultratech*, Technomax 30	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W
<b>Wood, Metal, Glass Surfaces or Cement-fibre Panels</b>	Technopur, Epotech A, Epotech W		Technopur		Technopur, Epotech W		Technopur		Technopur, Epotech W		Technopur	
Floor	Ceramic Tile, Glass Mosaic				Porcelain Tile		Clinker		Natural Stone, Marble, Granite			
	Karo Ebadı ≤ 1600 cm <sup>2</sup>	Karo Ebadı ≤ 2000 cm <sup>2</sup>	Karo Ebadı ≤ 3600 cm <sup>2</sup>	3600 cm <sup>2</sup> ≤ Karo Ebadı ≤ 5000 cm <sup>2</sup>	Karo Ebadı ≤ 1600 cm <sup>2</sup>	Karo Ebadı ≤ 2000 cm <sup>2</sup>	Karo Ebadı ≤ 3600 cm <sup>2</sup>	3600 cm <sup>2</sup> ≤ Karo Ebadı ≤ 5000 cm <sup>2</sup>	Karo Ebadı ≤ 1600 cm <sup>2</sup>	Karo Ebadı ≤ 2000 cm <sup>2</sup>	Karo Ebadı ≤ 3600 cm <sup>2</sup>	3600 cm <sup>2</sup> ≤ Karo Ebadı ≤ 5000 cm <sup>2</sup>
<b>Cementitious Screed / Concrete</b>	<b>Supertech</b> / Kalekim, Kalekimbeyaz, Kalekimtozumaz, Profesyonel		Profesyonel, Rapitech*, Rapitech Flex, Granitech, Technoflex	Technoflex*, Rapitech Flex, Technopool, Technolight	<b>Supertech</b> / Profesyonel	Profesyonel, Rapitech*, Rapitech Flex, Granitech	Rapitech*, Rapitech Flex, Granitech, Technoflex	Technoflex, Rapitech Flex, Technopool, Technolight, Ultratech*, Technomax 30	<b>Supertech</b> / Profesyonel, Rapitech*, Rapitech Flex, Granitech	Profesyonel, Rapitech*, Granitech	Technoflex, Technoflex*	Technoflex, Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W
<b>Underfloor Heating Surfaces</b>	Technoflex, Rapitech Flex, Technoflex*, Technopur		Technoflex, Rapitech Flex, Technopool, Technolight, Ultratech*, Technomax 30, Technopur	Technopool, Technolight, Ultratech*, Technomax 30, Technopur	Technoflex, Technoflex*, Technopur		Technoflex, Technopool, Technolight, Ultratech*, Technomax 30, Technopur	Technopool, Technolight, Ultratech*, Technomax 30, Technopur	Technoflex, Technoflex*, Technopur		Technoflex, Technopool, Technolight, Ultratech*, Technomax 30, Technopur	Technopool, Technolight, Ultratech*, Technomax 30, Technopur
<b>Existing Ceramic (**)</b>	Profesyonel	Profesyonel, Granitech, Technoflex, Technoflex*	Technoflex, Rapitech Flex, Technopool, Technolight, Ultratech*, Technomax 30	Rapitech Flex, Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W	Profesyonel	Profesyonel, Granitech, Technoflex, Technoflex*	Technoflex, Rapitech Flex, Technopool, Technolight, Ultratech*, Technomax 30	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W	Profesyonel, Rapitech	Profesyonel, Granitech, Technoflex, Rapitech Flex, Technoflex*	Technoflex, Rapitech Flex, Technopool, Technolight, Ultratech*, Technomax 30	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W
<b>Wood or Metal Surfaces</b>	Technopur, Epotech W		Technopur		Technopur, Epotech W		Technopur		Technopur, Epotech W		Technopur	
<b>Existing PVC, Rubber or Linoleum Floors</b>	Technopur, Epotech W		Technopur		Technopur, Epotech W		Technopur		Technopur, Epotech W		Technopur	
<b>Bitumen Coating Surfaces</b>	Technopur, Epotech W		Technopur		Technopur, Epotech W		Technopur		Technopur, Epotech W		Technopur	

For further information about application of coating materials one edge length longer than 100 cm and wall application of higher than 6 meters, please contact Kalekim Technical Office from pazarlama@kalekim.com.tr

(\*) Kalekim Astar should be used as primer for the surface preparation, before the application of cementitious products.

(\*\*) Kalekim Dolgu Astar should be used as primer for the surface preparation, before the application of cementitious products.

• Fast curing adhesives, can be used in places that must be open to traffic in 1 day.

- Cement based adhesives
- Dispersion based adhesives
- Reaction resin based adhesives

# Tile Adhesives Product Selection Chart

EXTERIOR							EXTERIOR					
Wall	Ceramic Tile, Glass Mosaic				Porcelain Tile		Clinker		Natural Stone, Marble, Granite			
	≤ 1600 cm <sup>2</sup>	≤ 2000 cm <sup>2</sup>	≤ 3600 cm <sup>2</sup>	≥ 3600 cm <sup>2</sup> ≤ 5000 cm <sup>2</sup>	≤ 1600 cm <sup>2</sup>	≤ 2000 cm <sup>2</sup>	≤ 3600 cm <sup>2</sup>	≥ 3600 cm <sup>2</sup> ≤ 5000 cm <sup>2</sup>	≤ 1600 cm <sup>2</sup>	≤ 2000 cm <sup>2</sup>	≤ 3600 cm <sup>2</sup>	≥ 3600 cm <sup>2</sup> ≤ 5000 cm <sup>2</sup>
Cementitious Render / Concrete	Kalekimbeyaz, (Only at glass mosaic applications) / Profesyonel, Granitech	Technoflex, Rapitech Flex, Technopool, Technolight, Ultratech*, Technomax 30	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W	Granitech, Rapitech*, Rapitech Flex, Technoflex	Technoflex, Rapitech Flex, Technopool, Technolight, Ultratech*, Technomax 30	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W		Technoflex, Rapitech Flex,	Technoflex, Rapitech Flex, Technopool, Technolight, Ultratech*, Technomax 30	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W	
Existing Ceramic (**)	Technoflex	Rapitech Flex, Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W			Technoflex	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W		Technoflex, Rapitech Flex,	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W		
Water Based Painted Surfaces	Technoflex	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W			Technoflex	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W		Technoflex, Rapitech Flex,	Technopool, Technolight, Ultratech*, Technomax 30, Technopur, Epotech W		
Thermal Insulation System	Ultratech*, Technomax 30, Technopur			Technopur	Ultratech*, Technomax 30, Technopur		Ultratech*, Technomax 30, Technopur	Technopur	Ultratech*, Technomax 30, Technopur			Technopur
Metal Surfaces	Technopur, Epotech W		Technopur		Technopur, Epotech W		Technopur		Technopur, Epotech W		Technopur	

Floor	Ceramic Tile, Glass Mosaic				Porcelain Tile		Clinker		Natural Stone, Marble, Granite			
	≤ 1600 cm <sup>2</sup>	≤ 2000 cm <sup>2</sup>	≤ 3600 cm <sup>2</sup>	≥ 3600 cm <sup>2</sup> ≤ 5000 cm <sup>2</sup>	≤ 1600 cm <sup>2</sup>	≤ 2000 cm <sup>2</sup>	≤ 3600 cm <sup>2</sup>	≥ 3600 cm <sup>2</sup> ≤ 5000 cm <sup>2</sup>	≤ 1600 cm <sup>2</sup>	≤ 2000 cm <sup>2</sup>	≤ 3600 cm <sup>2</sup>	≥ 3600 cm <sup>2</sup> ≤ 5000 cm <sup>2</sup>
Cementitious Screed / Concrete	Profesyonel, Granitech, Rapitech*	Profesyonel, Granitech, Rapitech*, Technofull*, Technoflex	Technopool, Technolight, Technoflex	Technopool, Technolight, Ultratech*, Technomax 30, Technopur	Profesyonel, Granitech, Rapitech*	Profesyonel, Granitech, Rapitech Flex*, Technofull*, Technoflex	Rapitech Flex, Technopool, Technolight, Technoflex	Technopool, Technolight, Ultratech*, Technomax 30, Technopur	Profesyonel, Granitech, Rapitech*	Profesyonel, Granitech, Rapitech*, Rapitech Flex, Technofull*, Technoflex	Rapitech Flex, Technopool, Technolight, Technoflex	Technopool, Technolight, Ultratech*, Technomax 30, Technopur
Existing Ceramic (**)	Profesyonel, Granitech	Technoflex, Technofull*	Technoflex, Technopool, Technolight, Ultratech*, Technomax 30, Technopur	Technopool, Technolight, Ultratech*, Technomax 30, Technopur	Profesyonel, Granitech	Technoflex, Technofull*	Technoflex, Technopool, Technolight, Ultratech*, Technomax 30, Technopur	Technopool, Technolight, Ultratech*, Technomax 30, Technopur	Profesyonel, Granitech	Technoflex, Technofull*	Technoflex, Technopool, Technolight, Ultratech*, Technomax 30, Technopur	Technopool, Technolight, Ultratech*, Technomax 30, Technopur
Bitumen Coating Surfaces	Technopur, Epotech W		Technopur		Technopur, Epotech W		Technopur		Technopur, Epotech W		Technopur	

For further information about application of coating materials one edge length longer than 100 cm and wall application of higher than 6 meters, please contact Kalekim Technical Office from pazarlama@kalekim.com.tr

(\*) Kalekim Astar should be used as primer for the surface preparation, before the application of cementitious products.

(\*\*) Kalekim Dolgu Astar should be used as primer for the surface preparation, before the application of cementitious products.

• Fast curing adhesives, can be used in places that must be open to traffic in 1 day.

- Cement based adhesives
- Dispersion based adhesives
- Reaction resin based adhesives

# Adhesive Selection Chart for Large Sized and Thin Tiles

		With Glass Fiber Reinforcing Mesh		Without Glass Fiber Reinforcing Mesh	
		< 5000 cm <sup>2</sup> (the longer side must be no more than 100 cm)	≥ 5000 cm <sup>2</sup>	< 5000 cm <sup>2</sup> (the longer side must be no more than 100 cm)	> 5000 cm <sup>2</sup>
<b>Wall</b>	INTERIOR				
	Cementitious Render	Ultratech*, Technopur, Epotech W	Ultratech*, Technopur	Technoflex, Technopool, Technomax 30, Ultratech*, Technolight, Technopur, Epotech W	Technopool, Technomax 30, Ultratech*, Technolight, Technopur
	Concrete	Ultratech*, Technopur, Epotech W	Ultratech*, Technopur	Technoflex, Technopool, Technomax 30, Ultratech*, Technolight, Technopur, Epotech W	Technopool, Technomax 30, Ultratech*, Technolight, Technopur
	Gypsum Plaster / Gypsum Board (*)	Ultratech* (After it is primed with Kalekim Dolgulu Astar.), Technopur, Epotech W	Technopur	Ultratech* (After it is primed with Kalekim Dolgulu Astar.), Technopur, Epotech W	Technopur
	Existing Ceramic	Ultratech*, Technopur, Epotech W	Ultratech*, Technopur	Technoflex, Technopool, Technomax 30, Ultratech*, Technolight, Technopur, Epotech W	Technopool, Technomax 30, Ultratech*, Technolight, Technopur
	Wood Surfaces	Technopur		Technopur	
<b>Floor</b>	Cementitious Screed	Ultratech*, Technopur, Epotech W	Ultratech*, Technopur	Technofull*, Technoflex, Technopool, Technomax 30, Ultratech*, Technolight, Technopur, Epotech W	Technopool, Technomax 30, Ultratech*, Technolight, Technopur
	Existing Ceramic	Ultratech*, Technopur, Epotech W	Ultratech*, Technopur	Technofull*, Technoflex, Technopool, Technomax 30, Ultratech*, Technolight, Technopur, Epotech W	Technopool, Technomax 30, Ultratech*, Technolight, Technopur
	Underfloor Heating Surfaces	Ultratech*, Technopur, Epotech W	Ultratech*, Technopur	Technofull*, Technoflex, Technopool, Technomax 30, Ultratech*, Technolight, Technopur, Epotech W	Technopool, Technomax 30, Ultratech*, Technolight, Technopur

		With Glass Fiber Reinforcing Mesh		Without Glass Fiber Reinforcing Mesh	
		< 5000 cm <sup>2</sup> (the longer side must be no more than 100 cm)	> 5000 cm <sup>2</sup>	< 5000 cm <sup>2</sup> (the longer side must be no more than 100 cm)	> 5000 cm <sup>2</sup>
<b>Wall</b>	EXTERIOR				
	Cementitious Render	Ultratech*, Technopur, Epotech W	Technopur	Technopool, Technomax 30, Ultratech*, Technolight, Technopur	Technopur
	Concrete	Ultratech*, Technopur, Epotech W	Technopur	Technopool, Technomax 30, Ultratech*, Technolight, Technopur	Technopur
	Existing Ceramic	Ultratech*, Technopur, Epotech W	Technopur	Technopool, Technomax 30, Ultratech*, Technolight, Technopur	Technopur
	Metal Construction	Technobond		Technobond	
<b>Floor</b>	Cementitious Screed	Ultratech*, Technopur, Epotech W	Ultratech*, Technopur	Technopool, Technomax 30, Ultratech*, Technolight, Technopur	Technopur
	Existing Ceramic	Ultratech*, Technopur, Epotech W	Ultratech*, Technopur	Technopool, Technomax 30, Ultratech*, Technolight, Technopur	Technopur

For further information about application of coating materials one edge length longer than 100 cm and wall application of higher than 6 meters, please contact Kalekim Technical Office from pazarlama@kalekim.com.tr  
 \* Fast curing adhesives, can be used in places that must be open to traffic in 1 day.

— Cement based adhesives  
 — Reaction resin based adhesives



# Colour is in its Chemistry!

*Resilient, elegant, hygienic!*



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## 2000 Fuga

### Grouting Mortar (1-6 mm)



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	White and coloured powder	
Shelf Life	12 months when stored in the original sealed packing in a dry place.	
<b>Application Data</b>		
Mixing Ratio	6 - 6.4 lt water / 20 kg powder 1.50 - 1.6 lt water / 5 kg powder. 0.6 - 0.64 lt water / 2 kg powder 0.30 - 0.32 lt water / 1 kg powder.	
Application Temperature Range	(+5°C) - (+35°C)	
Pot Life	1 hour	
Set to Light Traffic	1 day	
Consumption	See consumption table depending on width of the joints and dimensions of the tile.	
Bulk Density	~ 1.00 g/cm <sup>3</sup>	
<b>Performance Data</b>		
Flexural Strength (EN 12808-3)	≥ 2.5 N/mm <sup>2</sup>	
Compressive Strength (EN 12808-3)	≥ 15 N/mm <sup>2</sup>	
Flexural Strength (after freeze/thaw cycles) (EN 12808-3)	≥ 2.5 N/mm <sup>2</sup>	
Compressive Strength (after freeze/thaw cycles) (EN 12808-3)	≥ 15 N/mm <sup>2</sup>	
Abrasion Resistance (EN 12808-2)	≤ 1000 mm <sup>3</sup>	
Shrinkage (EN-12808-4)	≤ 3 mm/m	
Water Absorption after 30 min / 4 hours (EN 12808-5)	≤ 5 g. / ≤ 10 g.	
Service Temperature Range (after final cure)	(-30°C) - (+80°C)	

#### Description

Cement based grout for 1 to 6 mm joints.

#### Fields of Application

• Interior floor and wall grouting of ceramic tiles, marble, natural stones, glass mosaics, for 1-6 mm joints.

#### Properties

- A smooth final surface.
- Good abrasion resistance.
- Low shrinkage, therefore absence of cracks and fissures.
- Available in 16 different colors.

#### Preparation of Substrates

- The joint gaps should be dry, clean, and solid.
- The joint gaps should be free of adhesive preventive foreign substances such as dust, dirt, cement residues, etc.
- The joint gaps should be at least 2/3 of the tile thickness.
- When laying the tiles, the adhesive or mortar overflowing into the joint cavities should be cleaned before it hardens.
- Dampen the joints with clean water when using very porous ceramic tiles in high temperatures or in windy weather conditions.

#### Application

- Adhesive must be cured prior to grouting.
- Pour Fuga slowly on clean water at an amount specified in the technical table and mix until a homogeneous mixture is obtained. A low speed mixer is recommended to mix. The amount of water should be precisely measured. Do not add any additive which is not mentioned in the application instructions. Adding water more or less than specified amount may cause cracking, dusting and color defects.

- Allow the mortar to stand for 5-10 minutes to mature. After 1-2 minutes of remixing, the paste is ready for application.
- Use the mixture within 1 hour of preparation.
- Fill the joints completely with Fuga by using the appropriate rubber trowel, make sure that the joints are completely compacted. Remove the excess Fuga from the surface.
- When the grout mortar filled into the joint cavity loses its water and becomes dull, usually after about 10-20 minutes, the surface should be cleaned in a circular motion with a wet sponge. This period may be shortened in applications made in unfavorable ambient conditions such as direct sun, wind, etc, when coating materials have waited under the sun or have high absorbency. The problem of fluctuation in color may be encountered if the wiping is done too soon or when using a very wet sponge. The sponge should be cleaned frequently and water inside the bucket must be renewed frequently to prevent the development of a haze on the tile surface.
- After making sure that Fuga grout mortar is cured enough not to drain from the joint, the residues on the surface should be cleaned with the help of a dry cloth.

#### Post-Application Protection & Suggestions

- The materials such as natural stone, cotto, clinker and granite ceramic which are sensitive to stain should be protected with Seracare Surface Protector so as not to be affected by Fuga.
- If the surface of walls and floors are still contaminated with Fuga use Seracare Cement Remover to clean, at least 10 days after grouting the joints.

- Dispose mortars of which pot life is expired.
- All tools and hands should be cleaned with water before drying after the application.
- If Fuga is applied in extremely hot, dry or windy climates, it is recommended to wet the joints after several hours to improve the final performance.
- The consumption values in the technical table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

#### Storage

- Should be kept dry and cool at between +5°C and +35°C in damp free conditions. Avoid direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Maximum 3 pallets should be stacked on top of each other.
- Shelf life is maximum 12 months under above mentioned storage conditions.

#### Packaging

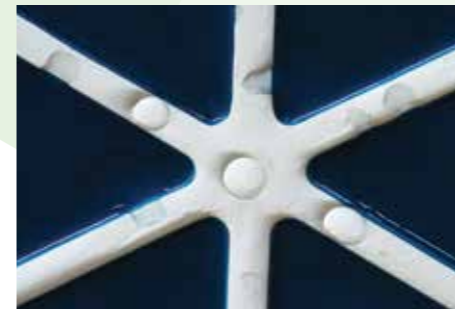
- 1 kg, 2 kg, 5 kg polyethylene bags.
- 20 kg. multi-ply paper bags.



Certificates of Quality  
TS EN 13888, Class CG2A  
C: Cementitious  
G: Grout  
2: Improved  
A: High abrasion resistance

## 2200 Ultrafuga

### Silicone Enhanced Grouting Mortar (1-6 mm)



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	White and coloured powder	
Shelf Life	12 months when stored in the original sealed packing in a dry place.	
<b>Application Data</b>		
Mixing Ratio	6 - 6.4 lt water / 20 kg powder 1.50 - 1.6 lt water / 5 kg powder. 0.6 - 0.64 lt water / 2 kg powder 0.30 - 0.32 lt water / 1 kg powder.	
Application Temperature Range	(+5°C) - (+35°C)	
Pot Life	1 hour	
Set to Light Traffic	1 day	
Consumption	See consumption table depending on width of the joints and dimensions of the tile.	
Bulk Density	~ 1.00 g/cm <sup>3</sup>	
<b>Performance Data</b>		
Flexural Strength (EN 12808-3)	≥ 2.5 N/mm <sup>2</sup>	
Compressive Strength (EN 12808-3)	≥ 15 N/mm <sup>2</sup>	
Flexural Strength (after freeze/thaw cycles) (EN 12808-3)	≥ 2.5 N/mm <sup>2</sup>	
Compressive Strength (after freeze/thaw cycles) (EN 12808-3)	≥ 15 N/mm <sup>2</sup>	
Abrasion Resistance (EN 12808-2)	≤ 1000 mm <sup>3</sup>	
Shrinkage (EN-12808-4)	≤ 3 mm/m	
Water Absorption after 30 min / 4 hours (EN 12808-5)	≤ 5 g. / ≤ 10 g.	
Service Temperature Range (after final cure)	(-30°C) - (+80°C)	

#### Description

High performance (high resistance to abrasion and reduced water absorption), cementitious, silicone enhanced grout for 1 to 6 mm joints.

#### Fields of Application

- Grouting of all types and sizes of ceramics (clinker, cotto, porcelain, granite tile, etc.), glass mosaic, natural stones for 1-6 mm joints.
- Interior floor and wall grouting wet areas like bathrooms, showers, easily get dirty like the kitchen.

#### Properties

- Less prone to dirtiness, easy to clean.
- Low water absorption with water repellency.
- Ultra-violet and atmosphere resistant colors.
- A smooth final surface.
- Low shrinkage, therefore absence of cracks and fissures.
- Very good abrasion resistance.
- Available in 32 different colors.

#### Preparation of Substrates

- The joint gaps should be dry, clean, and solid.
- The joint gaps should be free of adhesive preventive foreign substances such as dust, dirt, cement residues, etc.
- The joint gaps should be at least 2/3 of the tile thickness.
- When laying the tiles, adhesives or mortars overflowing into the joint cavities should be cleaned before it hardens.
- Dampen the joints with clean water when using very porous ceramic tiles in high temperatures and in the presence of wind.

#### Application

- Adhesive must be cured prior to grouting.
- Pour Ultrafuga slowly on clean water at an amount specified in the technical table and mix until a homogeneous mixture is obtained. A low speed

mixer is recommended to mix. The amount of water should be precisely measured. Do not add any additive which is not mentioned in the application instructions.

- Adding water more or less than specified amount may cause cracking, dusting and color defects.
- Allow the mortar to stand for 5-10 minutes to mature. After 1-2 minutes of remixing, the paste is ready for application.
- Use the mixture within 1 hour of preparation.
- Fill the joints completely with Ultrafuga by using the appropriate rubber trowel, make sure that the joints are completely compacted. Remove the excess Ultrafuga from the surface.

- When the grout mortar filled into the joint cavity loses its water and becomes dull, usually after about 10-20 minutes, the surface should be cleaned in a circular motion with a wet sponge. This period may be shortened in applications made in unfavorable ambient conditions such as direct sun, wind, etc., when coating materials have waited under the sun or have high absorbency. The problem of fluctuation in color may be encountered if the wiping is done too soon or when using a very wet sponge. The sponge should be cleaned frequently and change the water bucket frequently to prevent the development of a haze on the tile surface.

- After making sure that Ultrafuga grout mortar is cured enough not to drain from the joint, the residues on the surface should be cleaned with the help of a dry cloth.

#### Post-Application Protection & Suggestions

- The materials such as natural stone, cotto, clinker and granite ceramic which are sensitive to stain should be protected with Seracare Surface Protector so as not to be affected by Ultrafuga.
- If the surface of walls and floors are still contaminated with Ultrafuga use Seracare Cement Remover to clean, at least 10 days after grouting the joints.

- Dispose mortars of which pot life is expired.
- All tools and hands should be cleaned with water before drying after the application.
- If Ultrafuga is applied in extremely hot, dry or windy climates, it is recommended to wet the joints after several hours to improve the final performance.
- The consumption values in the technical table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

#### Storage

- Should be kept dry and cool at between +5°C and +35°C in damp free conditions. Avoid direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Maximum 3 pallets should be stacked on top of each other.
- Shelf life is maximum 12 months under above mentioned storage conditions.

#### Packaging

- 1 kg, 2 kg, 5 kg polyethylene bags.
- 20 kg. multi-ply paper bags.



Certificates of Quality  
TS EN 13888, Class CG2WA  
C: Cementitious  
G: Grout  
2: Improved  
W: Reduced water absorption  
A: High abrasion resistance

## 2300 Fugaflex

Flexible Grouting Mortar (1-6 mm)



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	White and coloured powder
Shelf Life	12 months when stored in the original sealed packing in a dry place.
<b>Application Data</b>	
Mixing Ratio	5.8 - 6.4 liters water / 20 kg. powder 1.45 - 1.6 liters water / 5 kg. powder
Application Temperature Range	(+5°C) - (+35°C)
Pot Life	1 hour
Set to Light Traffic	1 day
Consumption	See consumption table depending on width of the joints and dimensions of the tile.
Bulk Density	~ 1.00 g/cm <sup>3</sup>
<b>Performance Data</b>	
Flexural Strength (after 28 days) (EN 12808-3)	≥ 2.5 N/mm <sup>2</sup>
Compressive Strength (after 28 days) (EN 12808-3)	≥ 15 N/mm <sup>2</sup>
Flexural Strength (after freeze/thaw cycles) (EN 12808-3)	≥ 2.5 N/mm <sup>2</sup>
Compressive Strength (after freeze/thaw cycles) (EN 12808-3)	≥ 15 N/mm <sup>2</sup>
Abrasion Resistance (EN 12808-2)	≤ 1000 mm <sup>3</sup>
Shrinkage (EN-12808-4)	≤ 3 mm/m
Water Absorption after 30 min / 4 hours (EN 12808-5)	≤ 2 g. / ≤ 5 g.
Service Temperature Range (after final cure)	(-30°C) - (+80°C)

### Description

High performance (high resistance to abrasion and reduced water absorption), cementitious flexible grout for 1 to 6 mm joints.

### Fields of Application

- Grouting of all types and sizes of ceramic tiles, granite, cotto, clinker, glass mosaics, marble, natural stones with 1-6 mm joints at interior and exterior floors, and walls.
- Grouting wet places like swimming pools, water tanks.
- Grouting places where sudden temperature changes and heavy traffic exist like facades, terraces, over floor heating installations, warehouses.

### Properties

- Approved to be used in contact with water intended for human consumption.
- High flexibility.
- Good compressive and flexural strength and good resistance to freeze/thaw cycles.
- Low water absorption.
- A smooth final surface.
- Low shrinkage, therefore absence of cracks and fissures.
- Fast curing.
- Very good abrasion resistance.
- Ultra-violet and atmosphere resistant 32 different colours.

### Preparation of Substrates

- The joint gaps should be dry, clean, and solid.
- The joint gaps should be free of adhesion preventive foreign substances such as dust, dirt, cement residues, etc.
- The joint gaps should be at least 2/3 of the tile thickness.
- When laying the tiles, the adhesive or mortar overflowing into the joint cavities should be cleaned before it hardens.
- Dampen the joints with clean water when using very porous ceramic tiles in high temperatures and in the presence of wind.

### Application

- Adhesive must be cured prior to grouting.
- Pour Fugaflex slowly on at an amount specified in the technical table and mix until a homogeneous mixture is obtained. A low speed mixer is recommended to mix. The amount of water should be precisely measured. Do not add any additive which is not mentioned in the application instruction. Adding water more or less than specified amount may cause cracking, dusting and color defects.
- Allow the mortar to stand for 5-10 minutes to mature. After 1-2 minutes of remixing, the paste is ready for application.
- Use the mixture within 1 hour of preparation.
- Fill the joints completely with Fugaflex using the appropriate rubber trowel, make sure that the joints are completely compacted. Remove excess Fugaflex from the surface moving the float diagonally across joints.
- When grout mortar filled into the joint cavity loses its water and becomes dull, usually after about 10-20 minutes, the surface should be cleaned in a circular motion with a wet sponge. This period may be shortened in applications made in unfavorable ambient conditions such as direct sun, wind, etc. when coating materials have waited under the sun or have high absorbency. The problem of fluctuation in color may be encountered if the wiping is done too soon or when using a very wet sponge. The sponge should be cleaned frequently and water inside the bucket must be renewed frequently to prevent the development of a haze on the tile surface.
- After making sure that Fugaflex grout mortar is cured enough not to drain from the joint, the residues on the surface should be cleaned with the help of a dry cloth.

### Post-Application Protection & Suggestions

- The materials such as natural stone, cotto, clinker and granite ceramic which are sensitive to stain should be protected with Seracare Surface Protector so as not to be affected by Fugaflex.
- If the surface of walls and floors are still contaminated with Fugaflex use Seracare Cement Remover to clean, at least 10 days after grouting the joints.
- Dispose mortars of which pot life is expired.
- All tools and hands should be cleaned with water before drying after the application.
- If Fugaflex is applied in extremely hot, dry or windy climates, it is recommended to wet the joints after several hours to improve the final performance.
- The consumption values in the technical table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

### Storage

- Should be kept dry and cool at between +5°C and +35°C in damp free conditions. Avoid direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Maximum 3 pallets should be stacked on top of each other.
- Shelf life is maximum 12 months under above mentioned storage conditions.

### Packaging

- 1 kg, 5 kg. polyethylene bags.
- 20 kg. multi-ply paper bags.

Certificates of Quality  
TS EN 13888, Class CG2WA  
C: Cementitious  
G: Grout  
2: Improved  
W: Reduced water absorption  
A: High abrasion resistance



## 2500 Ultrafuga Flex

Silicone Enhanced Flexible Grouting Mortar (2-20 mm)



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	White and coloured powder
Shelf Life	12 months when stored in the original sealed packing in a dry place.
<b>Application Data</b>	
Mixing Ratio	5.8 – 6.2lt water / 20 kg. powder; 1.45 – 1.55 lt water / 5 kg. powder
Application Temperature Range	(+5°C) - (+35°C)
Pot Life	30 minutes
Set to Light Traffic	1 day
Consumption	See consumption table depending on width of the joints and dimensions of the tile.
<b>Performance Data</b>	
Flexural Strength (after 28 days) (EN 12808-3)	≥ 2.5 N/mm <sup>2</sup>
Compressive Strength (after 28 days) (EN 12808-3)	≥ 15 N/mm <sup>2</sup>
Flexural Strength (after freeze/thaw cycles) (EN 12808-3)	≥ 2.5 N/mm <sup>2</sup>
Compressive Strength (after freeze/thaw cycles) (EN 12808-3)	≥ 15 N/mm <sup>2</sup>
Abrasion Resistance (EN 12808-2)	≤ 1000 mm <sup>3</sup>
Shrinkage (EN-12808-4)	≤ 3 mm/m
Water Absorption after 30 min / 4 hours (EN 12808-5)	≤ 2 g. / ≤ 5 g.
Service Temperature Range (after final cure)	(-30°C) - (+80°C)

### Description

High performance (high resistance to abrasion and reduced water absorption), cementitious, silicone enhanced, grout for 2 to 20 mm joints.

### Fields of Application

- Grouting of all types and sizes of ceramic tiles, granite, cotto, clinker, glass mosaics, marble, natural stones with 2-20 mm joints at interior and exterior floors, and walls.
- Grouting wet places like swimming pools, water tanks.
- Grouting places where sudden temperature changes and heavy traffic exist like facades, terraces, over floor heating installations, warehouses.
- Floor and wall grouting of places like bathrooms, showers, balconies and kitchens.

### Properties

- Less prone to dirtiness, easy to clean.
- Low water absorption with water repellency.
- Approved to be used in contact with water intended for human consumption.
- Low shrinkage, therefore absence of cracks and fissures.
- Very good abrasion resistance.
- Good compressive and flexural strength and good resistance to freeze/thaw cycles.
- Fast curing.
- A smooth final surface.
- Low water absorption.
- Ultra-violet and atmosphere resistant 14 different colours.
- Ultrafuge Flex Tozumaz is user friendly with dust-free technology that allows a cleaner application particularly in interior areas.

### Preparation of Substrates

- The joint gaps should be dry, clean, and solid.
- The joint gaps should be free of adhesion preventive foreign substances such as dust, dirt, cement residues, etc.
- The joint gaps should be at least 2/3 of the tile thickness.
- When laying the tiles, adhesive or mortar overflowing into the joint cavities should be cleaned before it hardens.

- Dampen the joints with clean water when using very porous ceramic tiles in high temperatures and in the presence of wind.

### Application

- Adhesive must be cured prior to grouting.
- Pour Ultrafuga Flex slowly on clean water at an amount specified in the technical table and mix until a homogeneous mixture is obtained. A low speed mixer is recommended to use. The amount of water should be precisely measured. Do not add any additive which is not mentioned in the application instructions. Adding water more or less than specified amount may cause cracking, dusting and color defects.
- Allow the mortar to stand for 5-10 minutes to mature. After 1-2 minutes of remixing, the paste is ready for application.
- Use the mixture within 30 minutes of preparation.
- Fill the joints completely with Ultrafuga Flex using the appropriate rubber trowel, make sure that the joints are completely compacted. Remove excess Ultrafuga Flex from the surface moving the float diagonally across joints
- When the grout mortar filled into the joint cavity loses its water and becomes dull, usually after about 10-20 minutes, the surface should be cleaned in a circular motion with a wet sponge. This period may be shortened in applications made in unfavorable ambient conditions such as direct sun, wind, etc. when coating materials have waited under the sun or have high absorbency. The problem of fluctuation in color may be encountered if the wiping is done too soon or when using a very wet sponge. The sponge should be cleaned frequently and water inside the bucket must be renewed frequently to prevent the development of a haze on the tile surface.
- After making sure that the Ultrafuga Flex grout mortar is cured enough not to drain from the joint, the residues on the surface should be cleaned with the help of a dry cloth.

### Post-Application Protection & Suggestions

- The materials such as natural stone, cotto, clinker and granite ceramic which are sensitive to stain should be protected with Seracare Surface Protector so as not to be affected by Ultrafuga Flex.
- If the surface of walls and floors are still contaminated with Ultrafuga Flex use Seracare Cement Remover to clean, at least 10 days after grouting the joints.
- Dispose mortars of which pot life is expired.
- All tools and hands should be cleaned with water before drying after the application.
- If Ultrafuga Flex is applied in extremely hot, dry or windy climates, it is recommended to wet the joints after several hours to improve the final performance.
- The consumption values in the technical table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

### Storage

- Should be kept dry and cool at between +5°C and +35°C in damp free conditions. Avoid direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Maximum 3 pallets should be stacked on top of each other.
- Shelf life is maximum 12 months under above mentioned storage conditions.

### Packaging

- 5 kg polyethylene bags.
- 20 kg multi-ply paper bags.

Certificates of Quality  
TS EN 13888, Class CG2WA  
C: Cementitious  
G: Grout  
2: Improved  
W: Reduced water absorption  
A: High abrasion resistance



## 2600 Fugaflex

Flexible, Rustic Grouting Mortar (6-20 mm)



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	White and coloured powder	
Shelf Life	12 months when stored in the original sealed packing in a dry place.	
<b>Application Data</b>		
Mixing Ratio	4-4.4 liters water /20 kg powder	
Application Temperature Range	(+5°C) - (+35°C)	
Pot Life	1 hour	
Set to Light Traffic	1 day	
Consumption	See consumption table depending on width of the joints and dimensions of the tile.	
<b>Performance Data</b>		
Flexural Strength (after 28 days) (EN 12808-3)	≥ 2.5 N/mm <sup>2</sup>	
Compressive Strength (after 28 days) (EN 12808-3)	≥ 15 N/mm <sup>2</sup>	
Flexural Strength (after freeze/thaw cycles) (EN 12808-3)	≥ 2.5 N/mm <sup>2</sup>	
Compressive Strength (after freeze/thaw cycles) (EN 12808-3)	≥ 15 N/mm <sup>2</sup>	
Abrasion Resistance (EN 12808-2)	≤ 1000 mm <sup>3</sup>	
Shrinkage (EN-12808-4)	≤ 3 mm/m	
Water Absorption after 30 min / 4 hours (EN 12808-5)	≤ 2 g. / ≤ 5 g.	
Service Temperature Range (after final cure)	(-30°C) - (+80°C)	



### Description

High performance (high resistance to abrasion and reduced water absorption), cementitious flexible grout for 6 to 20 mm joints.

### Fields of Application

- Grouting of all types and sizes of ceramic tiles, granite, cotto, clinker, glass mosaics, marble, natural stones with 6-20 mm joints at interior and exterior floors, and walls.
- Grouting wet places like swimming pools, water tanks.
- Grouting places where sudden temperature changes and heavy traffic exist like facades, terraces, underfloor heating systems, warehouses.

### Properties

- Approved to be used in contact with water intended for human consumption.
- High flexibility.
- Good compressive and flexural strength and good resistance to freeze/thaw cycles.
- Low water absorption.
- A rustic final surface.
- Very good abrasion resistance.
- Low shrinkage, therefore absence of cracks and fissures.
- Fast curing.
- Ultra-violet and atmosphere resistant 12 different colours.

### Preparation of Substrates

- The joint gaps should be dry, clean, and solid.
- The joint gaps should be free of adhesion preventive foreign substances such as dust, dirt, cement residues, etc.
- The joint gaps should be at least 2/3 of the tile thickness.
- When laying the tiles the adhesives or mortars overflowing into the joint cavities should be cleaned before it hardens.
- Dampen the joints with clean water when using very porous ceramic tiles in high temperatures and in the presence of wind.

### Application

- Adhesive must be cured prior to grouting.
- Pour Fugaflex slowly on clean water at an amount specified in the technical table and mix until a homogeneous mixture is obtained. A low speed mixer is recommended to use. The amount of water should be precisely measured. Do not add any additive which is not mentioned in the application instructions. Adding water more or less than specified amount may cause cracking, dusting and color defects.
- Allow the mortar to stand for 5-10 minutes to mature. After 1-2 minutes of remixing, the paste is ready for application.
- Use the mixture within 1 hour of preparation.
- Fill the joints completely with Fugaflex using the appropriate rubber trowel, make sure that the joints are completely compacted. Remove excess Fugaflex from the surface moving the float diagonally across joints.
- When the grout mortar filled into the joint cavity loses its water and becomes dull, usually after about 10-20 minutes, the surface should be cleaned in a circular motion with a wet sponge. This period may be shortened in applications made in unfavorable ambient conditions such as direct sun, wind, etc. when coating materials have waited under the sun or have high absorbcency. The problem of fluctuation in color may be encountered if the wiping is done too soon or when using a very wet sponge. The sponge should be cleaned frequently and water inside the bucket must be renewed frequently to prevent the development of haze on the tile surface.
- After making sure that the Fugaflex grout mortar is cured enough not to drain from the joint, the residues on the surface should be cleaned with the help of a dry cloth.

### Post-Application Protection & Suggestions

- The materials such as natural stones, cotto, clinker and granite ceramic which are sensitive to stain should be protected with Seracare Surface Protector so as not to be affected by Fugaflex.
- If the surface of walls and floors are still contaminated with Fugaflex use Seracare Cement Remover to clean, at least 10 days after grouting the joints.
- Dispose mortars of which pot life is expired.
- All tools and hands should be cleaned with water before drying after the application.
- If Fugaflex is applied in extremely hot, dry or windy climates, it is recommended to wet the joints after several hours to improve the final performance.
- The consumption values in the technical table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

### Storage

- Should be kept dry and cool at between +5°C and +35°C in damp free conditions. Avoid direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Maximum 3 pallets should be stacked on top of each other
- Shelf life is maximum 12 months under above mentioned storage conditions.

### Packaging

- 20 kg multi-ply paper bags.

Certificates of Quality  
TS EN 13888, Class CG2WA  
C: Cementitious  
G: Grout  
2: Improved  
W: Reduced water absorption  
A: High abrasion resistance



## 2400 Fugaflex Rapid

Rapid Set Flexible Grout



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	White and coloured powder	
Shelf Life	12 months when stored in the original sealed packing in a dry place.	
<b>Application Data</b>		
Mixing Ratio	1.1 – 1.2 lt water / 5 kg powder	
Application Temperature Range	(+5°C) - (+35°C)	
Pot Life	1 hour	
Grouting after installation:		
- on walls bonded with normal adhesive:	4 - 8 hours	
- on walls bonded with fast-setting adhesive:	1 - 2 hours	
- on floors bonded with normal adhesive:	24 hours	
- on floors bonded with fast-setting adhesive:	3 - 4 hours	
Set to Light Traffic	Min 3 hours	
Ready for use	24 hours	
Consumption	See consumption table depending on width of the joints and dimensions of the tile.	
<b>Performance Data</b>		
Flexural Strength (EN 12808-3)	≥ 5 N/mm <sup>2</sup>	
Compressive Strength (EN 12808-3)	≥ 10 N/mm <sup>2</sup> (6 hours) ≥ 25 N/mm <sup>2</sup> (28 days)	
Flexural Strength (after freeze/thaw cycles) (EN 12808-3)	≥ 5 N/mm <sup>2</sup>	
Compressive Strength (after freeze/thaw cycles) (EN 12808-3)	≥ 25 N/mm <sup>2</sup>	
Abrasion Resistance (EN 12808-2)	≤ 500 mm <sup>3</sup>	
Shrinkage (EN-12808-4)	≤ 3 mm/m	
Water Absorption (EN 12808-5)	≤ 2 g (after 30 min) ≤ 5 g (after 240 min )	
Service Temperature Range (after final cure)	(-30°C) - (+80°C)	

### Description

Rapid set, high performance cementitious flexible grout for 2 to 20 mm joints with high resistance to abrasion and reduced water absorption.

### Fields of Application

- Grouting of all types and sizes of ceramic tiles, granite, cotto, clinker, glass mosaics, marble, natural stones with 2-20 mm joints at interior and exterior floors, and walls.
- Grouting of tile on places subject to heavy traffic like shopping malls, hospitals, hotels, private houses, etc.
- Grouting of wet places like swimming pools, water tanks.
- Grouting of places where sudden temperature changes and heavy traffic exist like facades, terraces, underfloor heating installations, warehouses.

### Properties

- Fast setting: it is ready for use and light foot traffic after a short period of time.
- High flexibility.
- Low water absorption.
- Resistance to efflorescence and cracks.
- Very good abrasion resistance.
- 10 different colours that are resistant to UV lights and climatic changes.

### Preparation of Substrates

- Joint gaps should be dry, clean, and solid.
- Joint gaps should be free of adhesion preventive foreign substances such as dust, dirt, cement residues, etc.
- Before grouting, wait until the tile adhesive is completely set.
- The joint gaps should be at least 2/3 of the tile thickness.
- Dampen the joints with clean water when using very porous ceramic tiles, in high temperatures and/or in the presence of wind.

### Application

- Pour Fugaflex Rapid slowly on clean water at amount specified in technical table and mix until a homogeneous mixture is obtained. (A low speed mixer is recommended to mix). The amount of water should be precisely measured.
- Do not add any additives which is not mentioned in the instructions of application.
- Adding water more or less than specified amount may cause cracking, dusting and color defects.
- Use the mixture within 1 hour of preparation.
- Fill the joints completely with Fugaflex Rapid using an appropriate rubber trowel, making sure that the joints are completely compacted. Remove excess Fugaflex Rapid from the surface moving the float diagonally across joints.
- When the grout mortar filled into the joint cavity loses its water and becomes dull, usually after about 10-20 minutes, the surface should be cleaned in a circular motion with a wet sponge.
- This period may be shortened in applications made under unfavorable ambient conditions such as direct sun, wind, etc, when coating materials have waited under the sun for long time or when coating materials have high absorbcency.
- The problem of fluctuation in color may be encountered if the wiping is done too soon or when a very wet sponge is used. The sponge should be cleaned frequently and water inside of the bucket must be renewed frequently to prevent the development of a haze on the tile surface.

### Post-Application Protection & Suggestions

- Any residue left can be removed from the surface with a clean dry cloth.
- For easier cleaning Seracare Surface Protector can be applied on the surface of porous and absorbent coating materials.

- If the surface of walls and floors are still contaminated with Fugaflex Rapid, use Seracare Cement Remover to clean, at least 10 days after grouting the joints.
- Dispose mortars of which pot life is expired.
- Clean tools and hands with plenty of water before Fugaflex Rapid hardens.
- Product application temperature and storage conditions should be between +5°C and +35°C.
- The consumption values in technical table refers to an average consumption amounts. It may vary depending on the application conditions and surface properties.
- Since contains cement, irritating to eyes, respiratory system and skin. For further information refer to safety data sheet.

### Storage

- Should be kept dry and cool at between +5°C and +35°C in damp free conditions. Avoid direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Maximum 3 pallets should be stacked on top of each other.
- Shelf life is maximum 24 months under above mentioned storage conditions.

### Packaging

- 5 kg plastic pail.

Certificates of Quality  
TS EN 13888, Class CG2WA  
C: Cementitious  
G: Grout  
2: Improved  
W: Reduced water absorption  
A: High abrasion resistance



# 2900 Fugapool

## Silicone Enhanced Flexible Grouting Mortar for Pools



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	White and coloured powder
Shelf Life	12 months when stored in the original sealed packing in a dry place.
<b>Application Data</b>	
Mixing Ratio	6 - 6.8 liters water/20 kg powder 1.5 - 1.7 liters water/5 kg powder
Application Temperature Range	(+5°C) - (+35°C)
Pot Life	1 hour
Set to Light Traffic	1 day
Consumption	See consumption table depending on width of the joints and dimensions of the tile.
<b>Performance Data</b>	
Flexural Strength (after 28 days) (EN 12808-3)	≥ 2.5 N/mm <sup>2</sup>
Compressive Strength (after 28 days) (EN 12808-3)	≥ 15 N/mm <sup>2</sup>
Flexural Strength (after freeze/thaw cycles) (EN 12808-3)	≥ 2.5 N/mm <sup>2</sup>
Compressive Strength (after freeze/thaw cycles) (EN 12808-3)	≥ 15 N/mm <sup>2</sup>
Abrasion Resistance (EN 12808-2)	≤ 1000 mm <sup>3</sup>
Shrinkage (EN-12808-4)	≤ 3 mm/m
Water Absorption after 30 min / 4 hours (EN 12808-5)	≤ 2 g. / ≤ 5 g.
Service Temperature Range (after final cure)	(-30°C) - (+80°C)

### Description

High performance, resistant against pool chemicals, flexible cementitious grout mortar for 1 to 6 mm joints.

### Fields of Application

- Grouting of all types and sizes of ceramic tiles, granite, cotto, clinker, glass mosaics, marble, natural stones with 1-6 mm joints at interior and exterior floors, and walls.
- Floor and wall grouting of wet places like swimming pools, water tanks, bathrooms, balconies, Turkish Bath, sauna, thermal spring and grouting places where sudden temperature changes like facades, over floor heating installations.

### Properties

- Resistant against pool chemicals.
- Approved to be used in contact with water intended for human consumption.
- High flexibility.
- Good compressive and flexural strength and good resistance to freeze/thaw cycles.
- Low water absorption.
- Low shrinkage, therefore absence of cracks.
- A smooth final surface.
- Very good abrasion resistance.
- Fast curing.
- UV and atmosphere resistance in 7 different colours.

### Preparation of Substrates

- The joint gaps should be dry, clean and solid.
- The joint gaps should be free of adhesive preventive foreign substances such as dust, dirt, cement residues etc.
- The joint gaps should be at least 2/3 of the tile thickness.
- When laying the tiles, adhesive or mortar overflowing into the joint cavities should be cleaned before it hardens.
- Moisturize the joints with clean water when using very porous ceramic tiles in high temperatures and in the presence of wind.

### Application

- The joints can be filled when the adhesive completely dries. Make sure that the waiting times in the technical data sheet of the adhesive have expired.
- Pour the Fugapool on the amount of clean water specified in the technical table slowly and mix until a homogeneous mixture is obtained. A low speed mixer is recommended to mix. The amount of water should be precisely measured. Do not add any additive which is not mentioned in the application instruction. Adding water more or less than specified may cause cracking, dusting and color defects.
- Allow the mortar to stand for 5-10 minutes to mature. After 1-2 minutes remixing, the paste is ready for application.
- Use the mixture within 1 hour of preparation.
- Fill the joints completely with Fugapool using the appropriate rubber trowel, making sure the joints are completely compacted. Remove excess Fugapool from the surface moving the float diagonally across joints.
- When the material filled into the joint cavity loses its water and becomes dull, the surface should be cleaned in a circular motion with a wet sponge, usually after about 10-20 minutes. This period may be shortened in applications made in unfavorable ambient conditions such as direct sun, wind, etc., among the coating materials which have waited in the sun or have high absorbency. The problem of fluctuation in color may be encountered if the wiping is done prematurely or when using a very wet sponge. The sponge should be cleaned frequently and change the water bucket frequently to prevent the development of a haze on the tile surface.
- After making sure that the Fugapool grout mortar is cured enough not to drain from the joint, the residues on the surface should be cleaned with the help of a dry cloth.

### Post-Application Protection & Suggestions

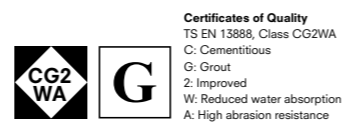
- The materials such as natural stones, cotto, clinker and granite ceramic which are sensitive to stain should be protected with Seracare Surface Protector so as not to be affected by Fugapool.
- If the surface of walls and floors are still contaminated with Fugapool use Seracare Cement Remover to clean, at least 10 days after grouting the joints.
- Dispose mortars of which pot life is expired.
- All tools and hands should be cleaned with water before drying after the application.
- When applying Fugapool in extremely hot, dry or windy climates, it is recommended to wet the joints after several hours to improve the final performance.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Package should be protected from water, frost and adverse weather conditions.
- Maximum 3 pallets should be stocked on each other.
- Shelf life is maximum 12 months conditional to complying with the abovementioned storage conditions.

### Packaging

- 20 kg multi-ply paper bags and 5 kg PE bags.



# 2800 Fugatech

## Ready to Use Flexible Grouting Mortar (1-6 mm)



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	White, beige and grey coloured paste
Dry Solids Content	≥ 85%
pH	8.00 ± 0.5
Shelf Life	12 months when stored in the original sealed packing in a dry place.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Set to Light Traffic	> 48 hours
Consumption	See epoxy & acrylic consumption table depending on width of the joints and dimensions on the tile.
<b>Performance Data</b>	
Density	1.7 ± 0.1 kg/ m <sup>3</sup>
Resistance to Ageing	Good
Flexibility	High
Hardness (Shore D)	~ 50
Services Temperature Range (after final cure)	(-15°C) - (+70°C)

### Description

Acrylic based, flexible, water repellent, ready to use paste for 1 to 6 mm joints.

### Fields of Application

- Grouting all types and sizes of ceramics and glass mosaics.
- Fugatech provides excellent results for horizontal and vertical interior applications and Fugatech Rustik is recommended for vertical exterior applications.
- Suitable for exterior facades and flexible substrates.

### Properties

- Less prone to dirtiness, easy.
- Low water absorption.
- DropEffect makes the tile joints water repellent.
- A smooth final surface.
- Low shrinkage, therefore absence of cracks and fissures.
- Very good abrasion resistance.
- Available in 3 different colors.
- Ready to use.
- Easy to apply.

### Preparation of Substrates

- The joint gaps should be dry, clean and solid.
- The joint gaps should be free of adhesive preventive foreign substances such as dust, dirt, cement residues, etc.
- The joint gaps should be at least 2/3 of the tile thickness.
- When laying the tiles, adhesive or mortar overflowing into the joint cavities should be cleaned before it hardens.
- Dampen the joints with clean water when using very porous ceramic tiles in high temperatures and in the presence of wind.

### Application

- Adhesive must be cured prior to grouting.
- Mix the pasta for 2-3 minutes before application. Do not add any additives which are not expressed in the application procedure.
- Fill the joints completely with Fugatech using the appropriate rubber trowel, make sure that the joints are completely compacted. Remove excess Fugatech from the surface moving the float diagonally across joints.
- 5 minutes after applying Fugatech, clean the surface with a damp sponge by making light circular movement on the tile surface and joints.
- Any residue left can be cleaned from the surface with a clean slightly damp cloth.

### Post-Application Protection & Suggestions

- Clean tools and containers with plenty of water before Fugatech hardens. After hardening solvents like acetone may be used for cleaning.
- Viscosity of the product should be preserved by mixing during application. The product should not be left open for a long time.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Do not use for the grouts exposed to water permanently.
- In case of skin and eye contact wash with plenty of water. For further information refer to the safety data sheet.

### Storage

- Should be kept dry and cool at between +5°C and +35°C in damp free conditions. Avoid direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months under above mentioned storage conditions.

### Packaging

- 3 kg plastic pail.

\*Standard packaging of the product is 3 kg. Larger sizes may be available for high amount projects. \*The larger filler is sized for grout of 1-10 mm and can be produced upon min. 500 kg orders and special color requests.

\*Standard packaging of the product is 3 kg. Larger sizes may be available for high amount projects. \*The larger filler is sized for grout of 1-10 mm and can be produced upon min. 500 kg orders and special color requests.

# 2940 Fugaprotech

## Cement Based Grouting Mortar with High Temperature Resistance (1-6 mm)



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	White, Cappadocia Beige, Grey powder	
Shelf Life	12 months when stored in the original sealed packing in a dry place.	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Mixing Ratio	4.1-4.5 lt water / 20 kg powder	
Pot Life	1 hour	
Set to Light Traffic	1 day	
Consumption	See consumption table depending on width of the joints and dimensions of the tile.	
<b>Performance Data</b>		
Flexural Strength (After Dry Storage and Freeze-Thaw Cycle) (EN 12808-3)	≥ 2.5 N/mm <sup>2</sup>	
Compressive Strength (After Dry Storage and Freeze-Thaw Cycle) (EN 12808-3)	≥ 45 N/mm <sup>2</sup>	
Abrasion Resistance (EN 12808-2)	≤ 1000 mm <sup>3</sup>	
Shrinkage (EN-12808-4)	≤ 3 mm/m	
Water Absorption after 30 min / 240 min (EN 12808-5)	≤ 2 g / ≤ 5 g	
Service Temperature Range (after final cure)	(-30°C) - (+250°C)	

### Description

High performance, resistant to high temperature, mechanical loads and pool chemicals cementitious grout for 1 to 6 mm joints.

### Fields of Application

- Interior and exterior areas, in wall and floor applications.
- Grouting of pool ceramics, granite ceramics, marble, glass mosaics, porcelain ceramics with 1-6 mm joints.
- In swimming pools, water reservoirs, in baths and saunas.
- Industrial floors exposed to heavy traffic and which requires mechanical and chemical cleaning.
- In terraces and balconies.

### Properties

- It provides resistance to pool and cleaning chemicals thanks to specially designed technology.
- Resistant to high temperatures up to 250 °C.
- Colors do not fade.
- A smooth final surface.
- Easy to apply.
- Low shrinkage, therefore no cracks.
- Very good abrasion resistance.

### Preparation of Substrates

- The joint gaps should be dry, clean, and solid.
- The joint gaps should be free of adhesion preventive foreign substances such as dust, dirt, cement residues, etc.
- The joint gaps should be at least 2/3 of the tile thickness.
- When laying the tiles, adhesive or mortar overflowing into the joint cavities should be cleaned before it hardens.
- Dampen the joints with clean water when using very porous ceramic tiles in high temperatures and in the presence of wind.

### Application

- Adhesive must be cured prior to grouting.
- Pour Fugaprotech slowly on clean water at an amount specified in the technical table and mix until a homogeneous mixture is obtained. A low speed mixer is recommended to mix. The amount of water should be precisely measured. Do not add any additive which is not mentioned in the application instructions.
- Adding water more or less than specified amount may cause cracking, dusting and color defects.
- Allow the mortar to stand for 5-10 minutes to mature. After 1-2 minutes of remixing, the paste is ready for application.
- Use the mixture within 1 hour of preparation.
- Fill the joints completely with Fugaprotech by using the appropriate rubber trowel, make sure that the joints are completely compacted. Remove excess Fugaprotech from the surface.
- When the grout mortar filled into the joint cavity loses its water and becomes dull, usually after about 10-20 minutes, the surface should be cleaned in a circular motion with a wet sponge. This period may be shortened in applications made in unfavorable ambient conditions such as direct sun, wind, etc., when coating materials have waited under the sun or have high absorbency. The problem of fluctuation in color may be encountered if the wiping is done too soon or when using a very wet sponge. The sponge should be cleaned frequently and water inside the bucket must be renewed frequently to prevent the development of a haze on the tile surface.
- After making sure that Fugaprotech grout mortar is cured enough not to drain from the joint, the residues on the surface should be cleaned with the help of a dry cloth.

### Post-Application Protection & Suggestions

- The materials such as natural stone, cotto, clinker and granite ceramic which are sensitive to stain should be protected with Seracare Surface Protector so as not to be affected by Fugaprotech.
- If the surface of walls and floors are still contaminated with Fugaprotech use Seracare Cement Remover to clean, at least 10 days after grouting the joints.
- Dispose mortars of which pot life is expired.
- All tools and hands should be cleaned with water before drying after the application.
- If Fugaprotech is applied in extremely hot, dry or windy climates, it is recommended to wet the joints after several hours to improve the final performance.
- The consumption values in the technical table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

### Storage

- Should be kept dry and cool at between +5°C and +35°C in damp free conditions avoiding direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Maximum 3 pallets should be stacked on top of each other.
- Shelf life is maximum 12 months under above mentioned storage conditions.

### Packaging

- 20 kg multi-ply paper bags.

Organic Acids	Chemical Resistance
Formic acid	(+)
Acetic acid	(+)
Lactic Acid	(-)
Solvents	
Ethanol	(+)
Alkalies	
Caustic Potassium	(+)
Pool Chemicals	
Chlorine	(+)
pH decauser	(+)
Antifouling	(+)
Cleaning Chemicals	
Hydrogen Peroxide	(+)
Sodium Hypochlorite	(+)
Others	
Olive oil	(+)^

(+) Resistant  
(-) Not resistant  
(^) Color change

Tile Sizes	Joint Width			
	2 mm	3 mm	4 mm	6 mm
10x10 cm	400-550 gr/m <sup>2</sup>	600-800 gr/m <sup>2</sup>	800-1100 gr/m <sup>2</sup>	1200-1600 gr/m <sup>2</sup>
20x20 cm	200-300 gr/m <sup>2</sup>	300-400 gr/m <sup>2</sup>	400-550 gr/m <sup>2</sup>	600-800 gr/m <sup>2</sup>
30x30 cm	150-200 gr/m <sup>2</sup>	200-300 gr/m <sup>2</sup>	300-350 gr/m <sup>2</sup>	400-550 gr/m <sup>2</sup>
60x60 cm	100 gr/m <sup>2</sup>	100 gr/m <sup>2</sup>	200-300 gr/m <sup>2</sup>	200-300 gr/m <sup>2</sup>

Certificates of Quality  
TS EN 13888, Class CG2WA  
C: Cementitious  
G: Grout  
2: Improved  
W: Reduced water absorption  
A: High abrasion resistance



## 2954 Epotech +

### Chemical Resistant Epoxy Grout and Adhesive



#### Description

Three-component, solvent-free, epoxy-resin-based, chemical resistant adhesive and water wipeable grout.

#### Fields of Application

- Adhesion and grouting applications of surface coating materials such as antiacid porcelain tiles, granite, etc.
- In industries like food, textile, pharmaceutical, and hospitals, thermal swimming pools where hygiene is required.
- In industrial places where high chemical and mechanical strength is required.
- Laboratory benches and commercial kitchen working areas.
- Provides excellent results for joints in saline or thermal swimming pools, wastewater treatment plants.

#### Properties

- Excellent bonding.
- Highly resistant to heavy traffic.
- Can be applied on a vertical surface.
- Easily trowellable.
- Excellent chemical and mechanical resistance.
- Stain resistant.
- Hygienic thanks to its low water absorption.
- Easy to clean thanks to its smooth surface.
- Crack, abrasion resistant and durable.
- Easy to apply with 60 minutes pot life at 25°C.

#### Preparation of Substrates

As an adhesive

- The surface must be dry and moisture content should not exceed 5%.
- Substrates must be sound, free from oil, grease, and sufficiently dry. Cementitious substrates must be cured.
- Use Tamirart series repair mortar or Mastar 10 in case of any loose and uneven substrates to get a sound and flat surface. .
- Wipe the back sides of tiles with water if dusty.

#### Application

As an adhesive

- First, empty the lower pail that contains components B and C. Then pour component A into the lower pail completely without leaving any residuals. Next, pour component B onto component A and mix with a low speed mixer until the mixture becomes homogeneous.
- Pour the component C, onto the mixture of components A and B which is already prepared in the pail completely without leaving any residuals. Mix with a low speed mixer to obtain a homogenous mixture.
- Spread the material by a notched trowel appropriate to the dimension. To obtain a good adhesion first apply a thin coat with the flat side of the trowel, then notch with the toothed side.
- Install the tiles with a firm pressure.
- Apply the material within its pot life which is 60 minutes. Dispose the material of which pot life is expired.

#### Preparation of Substrates

As a grout

- The surface must be dry and moisture content should not exceed 5%.
- The joint gaps should be free of adhesion preventive foreign substances such as dust, dirt, cement residues etc.
- The joint gaps should be at least 2/3 of the tile thickness.
- When laying the tiles the adhesives or mortars overflowing into the joint cavities should be cleaned before it hardens.
- Dampen the joints with clean water when using very porous ceramic tiles in high temperatures and in the presence of wind.

#### Application

As a grout

- Pour the grout on the tiles, spread the ground by the help of a rubber trowel and work the grout diagonally across the joints, filling them full. Remove excess grout off the tile using the edge of rubber trowel by diagonal movements and avoid pulling the grout out of filled joints.
- After 15 minutes, clean the excess grout using a damp sponge soaked in soap and water mixture, by making light circular movements on the tile surface and joints. Change the cleaning water and sponge as often as needed.

#### Post-Application Protection & Suggestions

- At low temperatures the viscosity of the material increases. Therefore keep the material at room temperature (23±3°C) for one day before use.
- Do not walk on the floor for the first 24 hours after application.
- Ventilate the work area during the application.
- Wear gloves, goggles / masks when working.
- Do not mix the product with water or solvents.
- Do not use it for grouting porous stones and ceramics. Epoxy resin may affect the color.
- Remove excess product from the tile surface rapidly because once hardened it will have to be removed mechanically.
- When the products are exposed to UV rays colours may darken.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- In case of skin and eye contact wash with plenty of water. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above-mentioned storage conditions.

#### Packaging

- In 5 kg units and plastic pails (3 component)
- Component A: 2.3 kg
- Component B: 0.3 kg
- Component C: 2.4 kg



#### Technical Properties

(at 23°C and 50% RH)

#### General Data

Appearance	Component A: White, Grey viscose liquid Component B: Light yellow transparent liquid Component C: Whitish powder
Shelf Life	12 months when stored in the original sealed packing in a dry place.

#### Application Data

Application Temperature Range	(+10°C) - (+27°C)
Pot Life	60 minutes at 25°C
Period of Grout filling	12 - 48 hours (Depending on the temperature)
Ready for Use (Max. Chemical Resistance)	7 days
Set to Foot Traffic	24 hours
Consumption	As an adhesive 3 - 4 kg./m <sup>2</sup> As a grout see epoxy grout consumption table.

#### Performance Data

Shear Adhesion Strength (EN 12003)	
- Initial	≥ 15 N/mm <sup>2</sup>
- After immersion in water	≥ 15 N/mm <sup>2</sup>
- After thermal shock	≥ 10 N/mm <sup>2</sup>
Flexural Strength (EN 12808-3)	≥ 30 N/mm <sup>2</sup>
Compressive Strength (EN 12808-3)	≥ 45 N/mm <sup>2</sup>
Abrasion Resistance (EN 12808-2)	≤ 250 N/mm <sup>3</sup>
Shrinkage (EN 12808-4)	≤ 1.5 mm/m
Water Absorption (after 240 min) (EN 12808-5)	≤ 0.10 gr
Service Temperature Range (after final cure)	(-20°C) - (+80°C)
Release of Dangerous Substances	See SDS.
Reaction to fire	Bs1d0



Certificates of Quality  
TS EN 13888 Class RG  
TS EN 12004 Class R2T  
RG: Reaction Resin Grout  
R2: Reaction Resin Improved Adhesive  
T: Reduced Slip.



# 2956 Epotech G

## Easy Cleanable Epoxy Grout



### Description

Three-component, solvent-free, epoxy-resin-based, chemical resistant, easy-cleanable grout.

### Fields of Application

- Grouting applications of surface coating materials such as antiacid porcelain tiles, granite, natural stone, marble etc. for 2-12 mm joints.
- In industries like food, textile, pharmaceutical and hospitals, thermal swimming pools where hygiene is required.
- In industrial places where high chemical and mechanical strength is required.
- Laboratory benches and commercial kitchen working areas.
- Provides excellent results for joints in saline or thermal swimming pools, wastewater treatment plants.

### Properties

- Easily apply and clean.
- Excellent chemical and mechanical resistance.
- Suitable for joints between 2-12 mm widths.
- Stain resistant.
- Hygienic thanks to its low water absorption.
- Easy to clean thanks to its smooth surface.
- Crack, abrasion resistant and durable.
- Easy to apply with 60 minutes pot life at 25°C.

### Preparation of Substrates

- The surface must be dry and moisture content should not exceed 5%.
- The joint gaps should be free of adhesion preventive foreign substances such as dust, dirt, cement residues, etc.
- The joint gaps should be at least 2/3 of the tile thickness.
- When laying the tiles, the adhesive or mortar overflowing into the joint cavities should be cleaned before it hardens.
- Dampen the joints with clean water when using very porous ceramic tiles in high temperatures and in the presence of wind.

### Application

- The joints can be filled when the adhesive completely dries.
- First empty the pail that contains the components B and C. Then pour the component A into the lower pail completely without leaving any residuals. Next, pour component B onto component A, and mix with a low speed mixer.
- Right after; pour the component C onto the mixture of components A and B which is already prepared in the pail completely without leaving any residuals. Mix with a low speed mixer to obtain a homogenous mixture.
- Apply the material within its pot life which is 60 minutes. Dispose the material of which pot life is expired.
- Pour the grout on the tiles, spread the grout by using a rubber trowel and work the grout with diagonally movements across the joints, packing them full. Remove excess grout off the tile using the edge of rubber trowel by diagonal movements while avoiding pulling the grout out of filled joints.
- After 15 minutes, clean grout residue off the tiles using a damp sponge soaked in soap and water mixture, by light circular movements on the tile surface and joints. Thanks to its easy-cleanable specialty, it can be easily cleaned with domestic water which does not need to be warm. Change the cleaning water and sponge as often as needed.
- Continue cleaning until eliminating the product from the surface of the tiles completely without removing it from joints.

### Post-Application Protection & Suggestions

- At low temperatures the viscosity of the material increases. Therefore keep the material at room temperature (23±3°C) for one day before use.
- Do not walk on the floor for the first 24 hours after application.
- Ventilate the work area during the application.
- Wear gloves, goggles / masks when working.
- Do not mix the product with water or solvents.
- Do not use it for grouting porous stones and ceramics. Epoxy resin may affect the color.
- Remove excess product from the tile surface rapidly because once hardened it will have to be removed mechanically.
- When the products are exposed to UV rays colours may darken.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- In case of skin and eye contact wash with plenty of water. For further information refer to the safety data sheet.

### Storage

- Should be kept dry and cool at between +5°C and +35°C in damp free conditions. Avoid direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months under above mentioned storage conditions.

### Packaging

- In 5 kg units and plastic pails (3 component)
- Component A: 3.85 kg
- Component B: 0.31 kg
- Component C: 0.84 kg



### Technical Properties

(at 23°C and 50% RH)

#### General Data

##### Appearance

Component A: White, Grey, Beige viscose liquid  
Component B: Yellow-green transparent liquid  
Component C: Off-white powder

##### Shelf Life

12 months when stored in the original sealed packing in a dry place.

#### Application Data

##### Application Temperature Range

(+10°C) - (+27°C)

##### Pot Life

60 minutes at 25°C

##### Ready for Use (Max. Chemical Resistance)

7 days

##### Set to Foot Traffic

24 hours

##### Consumption

As a grout see epoxy grout consumption table.

#### Performance Data

##### Flexural Strength (EN 12808-3)

≥ 30 N/mm<sup>2</sup>

##### Compressive Strength (EN 12808-3)

≥ 45 N/mm<sup>2</sup>

##### Abrasion Resistance (EN 12808-2)

≤ 250 N/mm<sup>3</sup>

##### Shrinkage (EN 12808-4)

≤ 1.5 mm/m

##### Water Absorption (after 240 min) (EN 12808-5)

≤ 0.10 gr

##### Service Temperature Range (after final cure)

(-20°C) - (+80°C)

##### Release of Dangerous Substances

See SDS.





# 2955 Fugasim

Grout with Dazzle Effect



## Description

Decorative, stain resistant and easy to clean grout, distinguishing places with shining gold, silver, copper metallic dazzles.

## Fields of Application

- Interior and exterior.
- Both horizontal and vertical applications.
- Swimming pools, bathrooms and other wet areas.
- Grouting joints of ceramic, granite ceramic, porcelain tiles and glass mosaic in malls, night clubs, restaurants and beauty centers.

## Properties

- Stain resistant.
- Hygienic thanks to its low water absorption.
- Easy to clean thanks to its smooth surface.
- Uniform colour-no blotchiness or shading.
- Creates decorative and unique places with dazzle additives.
- Crack, abrasion resistant and durable.
- Outperforms cement based grout.
- Easy to apply with 50 minutes pot life at 25°C.

## Preparation of Substrates

- The surface must be dry and moisture content should not exceed 5%.
- The joint gaps should be free of adhesion preventive foreign substances such as dust, dirt, cement residues etc.
- The joint gaps should be at least 2/3 of the tile thickness.
- When laying the tiles, the adhesive or mortar overflowing into the joint cavities should be cleaned before it hardens.
- Dampen the joints with clean water when using very porous ceramic tiles in high temperatures and in the presence of wind.

## Application

- The joints can be filled when the adhesive completely dries.
- For preparation of the mixture, first empty the pail that contains all the components. Pour components A, B and D respectively without leaving any residuals into the pail and stir with a low speed electrical stirrer until the mixture becomes homogeneous. Since component D is light and will become airborne easily be careful during mixing. When a matt texture is preferred it is possible to prepare the mixture without addition of components.
- Subsequently, add component C completely onto the mixture and continue stirring until obtaining a homogenous mixture. Do not mix the product with water or solvents.
- Pot life of the grout prepared is 50 minutes at 25°C. However, the pot life is affected by surface and ambient temperature; the pot life increases at low temperatures while it decreases at high temperatures. Do not use the grout of which pot life is expired.
- Pour the grout on the tiles, spread the grout diagonally across the joints, packing them full. Remove excess grout off the tiles using the edge of rubber trowel by diagonal movements and avoid pulling the grout out of filled joints. Do not use it for grouting porous stones and ceramics Epoxy resin may affect the color.
- In the shortest possible time, clean the excess grout using a damp sponge soaked in soap and water mixture, by making light circular movements on the tile surface and joints. Continue cleaning until eliminating the product from the surface of the tiles completely without removing it from joints. Change the cleaning water and the sponge is impregnated with resin and can no longer be cleaned, it must be replaced.
- For persistent grout film/haze staying on the surface of tiles then repeat the cleaning the surface with vinegar and water mixture (1.6 gr vinegar/100 gr water).

## Post-Application Protection & Suggestions

- At low temperatures the viscosity of the material increases. Therefore keep the material at room temperature (23±3°C) for one day before use.
- Since the application should be performed respectively it is recommended that the application be performed by a professional team.
- After the application, clean the tools with plenty of water.
- Clean the tools mechanically when the materials are cured.
- When light coloured products are exposed to UV rays colours may darken.
- In case of cleaning with strong acidic or alkali cleaners the dazzle additive might discolor. Therefore, use neutral pH water and soap mixture when cleaning Fugasim.
- In case of skin and eye contact wash with plenty of water. For further information refer to the safety data sheet.

## Storage

- Should be kept dry and cool at between +5°C and +35°C in damp free conditions. Avoid direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months under above mentioned storage conditions.

## Packaging

- 2.5 kg units and plastic pails (4 component).







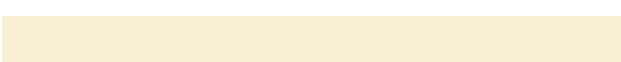





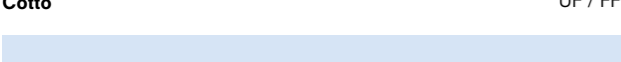







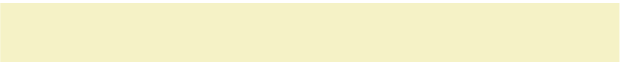













Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Component A: Light yellow transparent liquid Component B: Light yellow transparent liquid Component C: Black, Gray, Beige, Brown, Blue powder Component D: Silver, Gold, Copper dazzles
Shelf Life	12 months when stored in the original sealed packing in a dry place.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Pot Life	50 minutes at 25°C
Consumption	See epoxy grout consumption table.
Tack Free Time	5 hours
Ready for Use (Stain Resistance)	7 days
Set to Foot Traffic	24 Hours
<b>Performance Data</b>	
Flexural Strength (EN 12808-3)	≥ 30 N/mm <sup>2</sup>
Compressive Strength (EN 12808-3)	≥ 45 N/mm <sup>2</sup>
Abrasion Resistance (EN 12808-2)	≤ 250 N/mm <sup>3</sup>
Shrinkage (EN 12808-4)	≤ 1.5 mm/m
Water Absorption (after 240 min) (EN 12808-5)	≤ 0.10 gr
Service Temperature Range (after final cure)	(-20°C) - (+80°C)



# Colors of Grouting Mortars

FUGA, ULTRAFUGA, FUGAFLEX, ULTRAFUGA FLEX, FUGAPOOL, FUGAFLEX RAPID, FUGAPROTECH

	<b>White</b>	UF / F / FF / FP / UFF / UFFT / FFR / FPT
	<b>Grey</b>	UF / F / FF / FP / UFF / FFR / FPT
	<b>Uludag Grey</b>	UF / FF / UFF / FP / FFR
	<b>Satin Grey</b>	UF / F / FF / FP / UFF / FFR
	<b>Dydim Beige</b>	UF / FF
	<b>Bahama Beige</b>	UF / FF / UFF / FP / FFR
	<b>Ivory</b>	UF / FF / UFF / FP
	<b>Milet Brown</b>	UF / FF
	<b>Brown</b>	UF / FF / UFF
	<b>Light Brown</b>	UF / FF / UFF
	<b>Cappadocia Dark Brown</b>	UF / FF / UFF
	<b>Cotto</b>	UF / FF
	<b>Atlas Blue</b>	UF / FF / FP
	<b>Mediterranean Blue</b>	UF / FF / FP
	<b>Bitter</b>	UF / FF
	<b>Almond Green</b>	UF / FF

	<b>Walnut</b>	UF / FF
	<b>Mustard</b>	UF / FF
	<b>Satin Yellow</b>	UF / FF
	<b>Powder</b>	UF / FF
	<b>Dry Rose</b>	UF / FF
	<b>Vanilla</b>	UF / FF
	<b>Black</b>	UF / FF / UFF / FFR
	<b>Pool Blue</b>	UF / FF / FP / UFF
	<b>Cappadocia Cream</b>	UF / FF / FP / UFF / FFR
	<b>Cappadocia Beige</b>	UF / FF / UFF / FP / FFR / FPT
	<b>Avanos Beige</b>	UF / FF / FFR
	<b>Ürgüp Beige</b>	UF / FF / UFF
	<b>Nevsehir Beige</b>	UF / F / FF
	<b>Anthracite</b>	UF / FF / FFR
	<b>Cacao</b>	UF / FF
	<b>Jasmine</b>	UF / FF

## FUGASİM Gold Colors

	<b>Black</b>
	<b>Grey</b>
	<b>Beige</b>



## FUGASİM Silver Colors

	<b>Black</b>
	<b>Grey</b>
	<b>Beige</b>



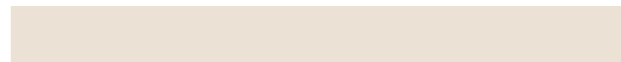
## FUGASİM Copper Colors

	<b>Black</b>
	<b>Grey</b>
	<b>Beige</b>

## EPOTECH + Colors

	<b>White</b>
	<b>Grey</b>

## FUGATECH Colors

	<b>White</b>
	<b>Grey</b>
	<b>Beige</b>

Grout colors may show difference from original because of the printing method used in this color card. The absorption of tile, water content of grout and climatic conditions may effect color shades. UF-ULTRAFUGA / F-FUGA / FF-FUGAFLEX / FP-FUGAPOOL / UFF-ULTRAFUGAFLEX / UFFT-ULTRAFUGAFLEX TOZUMAZ / FFR-FUGAFLEX RAPID / FPT-FUGAPROTECH

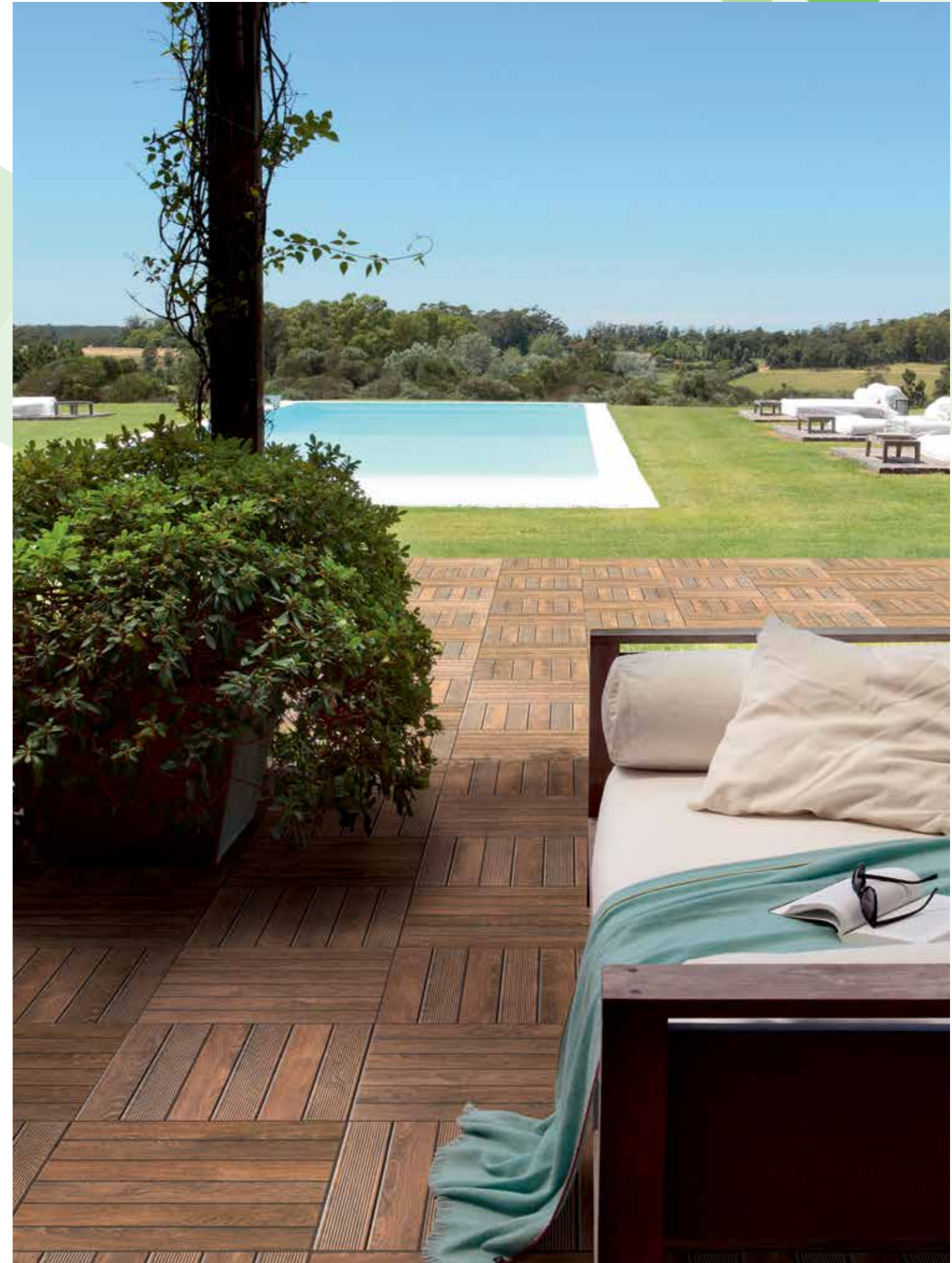
Grout colors may show difference from original because of the printing method used in this color card. The absorption of tile, water content of grout and climatic conditions may effect color shades.

## 2954 Epotech+ / 2956 Epotech G

### Chemical Resistance Test Results

PRODUCT NAME	%	TEST	PRODUCT NAME	%	TEST
Aluminium Sulphate	2	+	Nitric Acid	30	+^
Ammonium Chloride	10	+	Oxalic Acid	10	+
Ammonium Chloride	40	+	Oleic Acid		-
Ammonium Nitrate	40	+	Paraffin Oil/ Wax		+
Ammonium Sulphate	40	+	Cheese Water		+
Antifreeze		+	Orange Juice		+
Acetic Acid	10	+	Potasyum Hidroksit	25	+^
Acetone		-	Potassium Hydroxide	50	+^
Copper Sulphate	40	+	Potassium Carbonate	40	+
Barium Chloride	40	+	Potassium Chloride	40	+
Benzoic Acid	10	+	Potassium Nitrate	40	+
Beer		+	Potassium Sulphate	40	+
Boric Acid	10	+	Brine (Salt Solution)	5	+
Zinc Chloride	40	+	SERACARE Oil Solvent	20	+
Zinc Sulphate	40	+	SERACARE Oil Solvent	50	+
Iron (II) Sulphate	40	+	Liquid Detergent		+
Iron (III) Chloride	40	+	Silicone Oil		+
Tomato Juice		+	Citric Acid	10	+
Saturated Salt Solution		+	Citric Acid	50	+
Formaldehyde	37	+	Sodium Acetate		+
Formic Acid	2,5	+	Sodium Bicarbonate	40	+
Phosphoric Acid	10	+^	Sodium Phosphate	40	+
Glycerin		+	Sodium Hydroxide	25	+
Hydrofluoric Acid	20	+	Sodium Hydroxide	50	+
Hydrogen Peroxide	10	+	Sodium Hypochloride Concentrate	Min. %5	+
Hidrojen Peroksit	25	+	Sodium Carbonate	10	+
Hydrochloric Acid	37	+^	Sodium Carbonate	50	+
Hydraulic Fluid		+	Sodium Chlorate	40	+
Urine		+	Sodium Chloride	40	+
Isopropyl Alcohol	100	+	Sodium Monochromate Concentrated		+
Jet Fuel		+	Sodium Monochromate Diluted		+
Calcium Hydroxide	20	+	Sodium Nitrate	40	+
Calcium Chloride	40	+	Sodium Silicate 40-42 Be		+
Calcium Nitrate	40	+	Sodium Sulfite	40	+
Kerosene		+	Stearic Acid	10	+
Chlorinated Water	2 mg/l	+	Stearic Acid	40	+
Cola		+	Water		+
Chromic Acid	5	+	Sulphuric Acid	10	+^
Lactic Acid	2,5	+^	Sulphuric Acid	50	+^
Lactic Acid	10	+^	Sulphuric Acid	70	+^
Magnesium Chloride	40	+	Milk		+
Magnesium Nitrate	40	+	Wine		+
Magnesium Sulphate	40	+	Sugared Water	50	+
Diesel Oil		+	Tartaric Acid	10	+
Mineral Oil		+	Trisodium Phosphate	40	+
Engine Oil		+	Urea	20	+
Nickel Sulphate	33,3	+	Grape Juice		+
Nitric Acid	10	+^	Olive Oil		+^

^ : Discoloration  
+ : Resistant  
- : Not resistant



# Cementitious Grouting Mortar Consumption Chart

Tile Dimensions (cm)	Joint Gap Depth (mm)	Joint Gap Width (mm)						
		1	2	3	4	5	6	10
		Consumption (gr/m <sup>2</sup> )						
<b>2,5x2,5</b>	6	800	1600	2400	3200	4000	4750	7950
	8	1100	2100	3200	4250	5300	6350	10600
	10	1350	2650	4000	5300	6650	7950	13200
	12	1600	3200	4750	6350	7950	9500	15850
<b>5x5</b>	6	400	800	1200	1600	2000	2400	4000
	8	550	1110	1600	2100	2650	3200	5300
	10	700	1350	2000	2650	3300	4000	6600
	12	800	1600	2400	3200	4000	4750	7950
<b>10x10</b>	6	200	400	600	800	1000	1200	2000
	8	300	550	800	1100	1350	1600	2650
	10	350	700	1000	1350	1650	2000	3300
	12	400	800	1200	1600	2000	2400	4000
<b>10x20</b>	6	150	300	450	600	750	900	1500
	8	200	400	600	800	990	1200	2000
	10	250	500	750	1000	1250	1500	2500
	12	300	600	900	1200	1500	1800	3000
<b>20x20</b>	6	100	200	300	400	500	600	1000
	8	150	300	400	550	700	800	1350
	10	200	350	500	700	850	1000	1650
	12	200	400	600	800	1000	1200	2000
<b>20x30</b>	6	100	200	250	350	450	500	850
	8	150	250	350	450	550	700	1100
	10	150	300	450	550	700	850	1400
	12	200	350	500	700	850	1000	1650
<b>20x50</b>	6	100	150	250	300	350	450	700
	8	100	200	300	400	500	550	950
	10	150	250	350	500	600	700	1150
	12	150	300	450	550	700	850	1400
<b>25x33</b>	6	100	150	250	300	350	450	700
	8	100	200	300	400	500	600	950
	10	150	250	350	500	600	700	1200
	12	150	300	450	600	700	850	1400
<b>25x40</b>	6	100	150	200	250	350	400	650
	8	100	200	250	350	450	550	850
	10	150	250	350	450	550	650	1100
	12	150	250	400	550	650	800	1300
<b>25x75</b>	6	50	100	200	250	300	350	550
	8	100	150	250	300	350	450	700
	10	100	200	300	350	450	550	900
	12	150	250	350	450	550	650	1050
<b>30x30</b>	6	100	150	200	300	400	400	700
	8	100	200	300	350	450	550	900
	10	150	250	350	450	550	700	1100
	12	150	300	400	550	700	800	1350
<b>30x45</b>	6	100	150	200	250	300	350	550
	8	100	150	250	300	400	450	750
	10	100	200	300	400	500	550	950
	12	150	250	350	450	550	700	1100

Tile Dimensions (cm)	Joint Gap Depth (mm)	Joint Gap Width (mm)						
		1	2	3	4	5	6	10
		Consumption (gr/m <sup>2</sup> )						
<b>30x60</b>	6	50	100	150	200	250	300	500
	8	100	150	200	300	350	400	700
	10	100	200	250	350	450	500	850
	12	100	200	300	400	500	600	1000
<b>30x90</b>	6	50	100	150	200	250	300	450
	8	100	150	200	250	300	350	600
	10	100	150	250	300	400	450	750
	12	100	200	300	350	450	550	900
<b>33x33</b>	6	100	150	200	250	300	400	600
	8	100	200	250	350	400	500	800
	10	100	200	300	400	500	600	1000
	12	150	250	400	500	600	750	1200
<b>33x50</b>	6	50	100	150	200	250	300	500
	8	100	150	200	300	350	400	700
	10	100	200	250	350	450	500	850
	12	100	200	300	400	500	600	1000
<b>40x40</b>	6	50	100	150	200	250	300	500
	8	100	150	200	300	350	400	700
	10	100	200	250	350	450	500	850
	12	100	200	300	400	500	600	990
<b>45x45</b>	6	50	100	150	200	250	300	450
	8	100	150	200	250	300	350	500
	10	100	150	250	300	400	450	750
	12	100	200	300	350	450	550	900
<b>45x90</b>	6	50	100	100	150	200	200	350
	8	50	100	150	200	250	300	450
	10	100	150	200	250	300	350	550
	12	100	150	200	300	350	400	700
<b>50x100</b>	6	50	100	100	150	150	200	300
	8	50	100	150	200	200	250	400
	10	50	100	150	200	250	300	500
	12	100	150	200	250	300	400	600
<b>50x150</b>	6	50	100	100	150	150	200	300
	8	50	100	150	150	200	250	350
	10	50	100	150	200	250	300	450
	12	100	150	200	250	300	350	550
<b>60x60</b>	6	50	100	100	200	200	200	350
	8	50	100	150	300	250	300	450
	10	50	100	200	250	300	350	550
	12	100	150	200	300	350	400	700
<b>60x120</b>	6	50	50	100	100	150	150	250
	8	50	100	100	150	200	200	350
	10	50	100	150	200	200	250	450
	12	50	100	150	200	250	300	500

## Epoxy and Acrylic Grout Consumption Chart

Tile Dimensions (cm)	Joint Gap Depth (mm)	Joint Gap Width (mm)				
		3	4	5	7	10
		Consumption (gr/m <sup>2</sup> )				
11,5x24	14	1050	1400	1750	2400	3500
	15	1100	1400	1850	2600	3650
20x20	7	400	550	700	950	1350
24x24	14	800	900	1200	1600	2300
	15	700	1000	1200	1700	2400
25x25	7	350	450	850	750	1100
30x30	8,5	350	450	550	750	1100
33x50	9	250	350	450	600	900
40x40	9	250	350	450	600	900
60x60	12	250	300	400	550	800



# Grouts Product Selection Chart

		Grout Width (mm)	Tiles		
			Ceramic, Glass Mosaic	Porcelain Tile, Granite, Clinker	Natural Stone, Marble, Natural Granite
Cement Based	Fuga	1-6 mm	●	●	●
	Ultrafuga	1-6 mm	●	●	●
	Fugaflex	1-6 mm	●	●	●
	Fugaflex	6-20 mm	●	●	●
	Ultrafuga Flex Ultrafuga Flex Tozumaz	2-20 mm	●	●	●
	Fugaflex Rapid	2-20 mm	●	●	●
	Fugapool	1-6 mm	●	●	●
Acrylic Based	Fugatech	1-6 mm	●	●	
Epoxy Based	Fugasim	3-20 mm	●	●	
	Epotech+	4-10 mm	●	●	
	Epotech G	2-12 mm	●	●	
Sealants	Kalesilikon		●	●	
	Kalepolymas		●	●	
	Kalesilikon Plus		●	●	
	Kalepolymas MS		●	●	●
	Kalesilikon NS			●	●

Fields of Application								
Interior	Bathroom, Shower, Kitchen	Balconies, Terraces, Gardens	Turkish Baths, Sauna	Heavy Duty Traffic	Swimming Pool, Water Tank (Drinkable Water)	Facade Coatings	Under Floor Heating	Acid and Chemical Resistant Industrial Places
●								
●	●							
●		●		●	●	●	●	
		●		●	●	●	●	
●	●	●	●	●	●	●	●	
●	●	●		●		●	●	
		●	●		●			
●	●						●	
●				●				
●	●			●				●
●	●	●						
●		●				●		
●						●		

# Strength is in its Chemistry!

*Protection, strengthening, durability!*



## Performance Repair Solutions

- 156 İNCE SIVA / FINISH PLASTER
- 157 TAMİRART W
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PRODUCT SELECTION CHART

# 4041 İnce Siva / Finish Plaster

Finish Plaster Applicable Manually or Mechanically



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Grey and white powder	
Shelf Life	12 months when stored in the original sealed packing in a dry place.	
<b>Application Data</b>		
Mixing Ratio	6 - 7 lt water / 25 kg grey powder 6.5 - 7.5 lt water / 25 kg white powder	
Application Temperature Range	(+5°C) - (+35°C)	
Thickness	3 - 10 mm (per layer)	
Pot Life	~4 hours	
Consumption	1.50 kg/m <sup>2</sup> (for 1 mm thickness)	
<b>Performance Data</b>		
Bulk Density of Hardened Mortar (EN 1015 -10)	1500 ± 100 kg/m <sup>3</sup>	
Compressive Strength of Hardened mortar (EN 1015-11)	CS IV ≥ 6 N/mm <sup>2</sup>	
Bonding Strength - Type of Break (EN 1015-12)	≥ 0.4 N/mm <sup>2</sup>	
Water Absorption Coefficient due to Capillary Action of Hardened Mortar (EN 1015-18)	≤ 0.40 kg/m <sup>2</sup> dk <sup>0.5</sup> / W1	
Water Vapour Permeability Coefficient	≤ 15 µ	
Working Life (EN 1015-9)	≥ 120 min.	
Service Temperature Range	(-30°C) - (+80°C)	
Release of Dangerous Substances	See SDS.	
Reaction to Fire (EN 13501-1)	A1	



## Description

Cement based finish plaster mortar developed with special additives that is suitable for manual or mechanical application.

## Fields of Application

- For providing smooth surface before interior and exterior painting, tiling and insulation of buildings,
- On cementitious render, concrete and smooth concrete surfaces,
- On bricks, pumice concrete, walls and ceilings.

## Properties

- High bonding strength.
- Creates smooth and sound surface.
- Resistant to freeze-thaw cycle.
- Applicable between thicknesses of 3-10 mm.
- Easy to apply.

## Preparation of Substrates

- The substrates should be dry, clean and solid.
- The surfaces to be coated should be free of adhesion preventive foreign substances such as dust, dirt, mould oil, paint etc.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.
- Use Tamirart series repair mortar in case of any loose and uneven substrates to get a sound and flat surface.
- Before application, the surface must be moistened or primed with Kalekim Astar (Primer).
- Kalekim B-Tone must definitely be used before applications to be done on exposed concrete.

## Application

- Pour Kalekim Finish Plaster into the advised amount of water slowly and mixed until a homogeneous mixture is obtained. Mixing must be done with low-speed mixer. Additives not specified in the application instructions must not be added.
- The prepared mortar must be rested for 5-10 minutes for maturation purpose. It must be mixed again for 1-2 minutes before starting application.
- Kalekim Finish Plaster must be applied with a steel trowel not to exceed 10 mm in one coat. For applications with thicknesses more than 10 mm, second coat application must be made after at least 1 day.
- The surface must be polished with a damp sponge to give a final surface appearance.

## Post-Application Protection & Suggestions

- After the application, the surface should be moistened at certain periods during the curing, if necessary.
- Make sure that the surface is fully dried and cured before covering it.
- Expired or encrusted mortar in the bucket must be disposed. Weather conditions such as high temperature, low humidity, wind may shorten this period.
- After application, hands and application tools must be washed with plenty of water.
- Indicated consumption is a general information. It may change depending on the application conditions and surface properties.
- Since it contains cement, irritates to eyes, respiratory system and skin.
- For further information refer to the safety data sheet.

## Storage

- Packages should be kept dry and cool at between +5°C and +35°C in damp free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Maximum 3 pallets should be stacked on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned storage conditions.

## Packaging

- 25 kg multi-ply paper bags.

# 4003 Tamirart W

White Color Surface Smoothing and Repairing Mortar



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	White powder	
Shelf Life	12 months when stored in the original sealed packing in dry place.	
<b>Application Data</b>		
Mixing Ratio	6.0 - 7.0 liters water / 20 kg powder 1,5 - 1,75 liters water / 5 kg powder	
Application Temperature Range	(+5°C) - (+35°C)	
Pot Life	Min. 1 hour	
Application Thickness	Max. 5 mm (for single layer)	
Consumption	1.20-1.40 kg/m <sup>2</sup> (per 1 mm thickness)	
Waiting Time Before Bonding (Ready For Use)	24 hours	
<b>Performance Data</b>		
Compressive Strength (EN 12808-3)	≥ 10.0 N/mm <sup>2</sup> (28 days)	
Flexural Strength (EN 12808-3)	≥ 2.5 N/mm <sup>2</sup>	
Tensile Strength (EN 1542)	≥ 0.8 N/mm <sup>2</sup>	
Service Temperature Range (after final cure)	(-30°C) - (+80°C)	
Release of Dangerous Substances	See SDS.	
Reaction to Fire (EN 13501-1)	A1	



## Description

Cementitious, polymer reinforced filling and repair rendering for smoothing surfaces prior to painting.

## Fields of Application

- Filling hair cracks and smoothing of the surfaces of aerated concrete, concrete, brick walls prior to painting.
- Smoothing walls during restoration.
- Repairing wall and ceiling renders.
- Repairing old, damaged renders and concrete up to 1-5 mm.

## Properties

- High adhesion strength.
- Smooth and solid surface.
- Easily paintable due to white color.
- Resistant to freeze and thaw.
- Applicable between 1-5 mm thickness.
- Easily applicable.

## Preparation of Substrates

- The substrates must be dry, clean and solid.
- The substrates to be coated should be free of adhesion preventive foreign substances such as dust, dirt, mould oil, paint etc.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.
- Before the application, the surface should be dampened or primed with Kalekim Astar (Primer) for better results.
- Exposed concrete surfaces should be primed with Kalekim B-tone.

## Application

- Pour Tamirart W slowly on the amount of clean water specified in the technical table and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix. Do not add any additive which is not mentioned in the instructions for the application.
- Allow the mortar to stand for 5-10 minutes to mature. After 1-2 minutes of remixing, the paste is ready for application.
- Apply mortar with a flat trowel with a firm pressure to ensure a good adhesion and should be applied not exceeding 5 mm on the surface.
- The surface should be glazed with a damp sponge.

## Post-Application Protection & Suggestions

- When applying on walls which are directly exposed to sun or wind, it is advisable to wet the surface of Tamirart W for the following 24 hours after application.
- The product should be used within 60 minutes. Weather conditions such as high temperature, low humidity, and wind may shorten this period.
- Dispose mortars of which pot life is expired.
- Clean tools and hands with water after application.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties. Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.



## 4001 Tamirart 5

### Fine Repairing Mortar



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Grey powder
Shelf Life	12 months when stored in the original sealed packing in a dry place.
<b>Application Data</b>	
Mixing Ratio	4.25 – 5.25 liters water / 25 kg powder
Application Temperature Range	(+5°C) - (+35°C)
Pot Life	Min. 60 minutes
Application Thickness	1-10 mm (for single layer)
Consumption	1.40 kg/m <sup>2</sup> (per 1 mm thickness)
<b>Performance Data</b>	
Compressive Strength (EN 12808-3)	≥ 150 N/mm <sup>2</sup> (28 days)
Flexural Strength (EN 12808-3)	≥ 4.0 N/mm <sup>2</sup>
Tensile Strength (EN 1542)	≥ 1.0 N/mm <sup>2</sup>
Restrained Shrinkage/Expansion (EN 12617-4)	≥ 0.8 N/mm <sup>2</sup>
Capillary Water Absorption (EN 13057)	≤ 0.5 kg/m <sup>2</sup> h <sup>0.5</sup>
Service Temperature Range (after final cure)	(-30 °C) – (+80 °C)
Release of Dangerous Substances	See SDS.
Reaction to Fire (EN 13501-1)	A1

#### Description

Cementitious, polymer reinforced rendering and repair mortar.

#### Fields of Application

- Smoothing walls prior to restoration, ceramic tiles installation and painting.
- Smoothing and filling hairy cracks on the surfaces of foamed cement, concrete, brick walls.
- Repairing old, damaged renders, concrete up to 1-10 mm.

#### Properties

- High adhesion strength.
- Smooth and solid surface.
- Resistant to freeze and thaw.
- Applicable up to 1-10 mm thickness.
- Easily applicable.

#### Preparation of Substrates

- The substrates must be dry, clean and solid.
- The substrates to be coated should be free of adhesion preventive foreign substances such as dust, dirt, mould oil, paint etc.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.
- Before application, the surface should be dampened or primed with Kalekim Astar (Primer) for better results.
- Exposed concrete surfaces should be primed with Kalekim B-tone.

#### Application

- Pour Tamirart 5 slowly on the of clean water specified in the technical table and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix. Do not add any additive which is not mentioned in the instructions for the application.
- Allow the mortar to stand for 5-10 minutes to mature. After 1-2 minutes of remixing, the paste is ready for application.
- Apply mortar with a rendering machine flat trowel with a firm pressure to ensure a good adhesion and should be applied not exceeding 5 mm on the surface.
- The surface should be glazed with a damp sponge.

#### Post-Application Protection & Suggestions

- When applying on walls directly exposed to sun or wind, it is advisable to wet the surface of Tamirart 5 for the following 24 hours after application.
- The product should be used within 60 minutes.
- Weather conditions such as high temperature, low humidity, and wind may shorten this period.
- Dispose mortars of which pot life is expired.
- Clean tools and hands with water after application.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Maximum 3 pallets should be stacked on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned storage conditions.

#### Packaging

- 25 kg multi-ply paper bags.

## 4002 Tamirart 30

### Coarse Repairing Mortar



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Grey powder
Shelf Life	12 months when stored in the original sealed packing in a dry place.
<b>Application Data</b>	
Mixing Ratio	4.00 – 5.00 liters water / 25 kg powder
Application Temperature Range	(+5°C) - (+35°C)
Pot Life	Min. 60 minutes
Application Thickness	Max. 30 mm (for single layer)
Consumption	1.90 kg/m <sup>2</sup> (per 1 mm thickness)
<b>Performance Data</b>	
Compressive Strength (EN 12808-3)	≥ 20 N/mm <sup>2</sup> (28 days)
Flexural Strength (EN 12808-3)	≥ 4.0 N/mm <sup>2</sup>
Tensile Strength (EN 1542)	≥ 1.0 N/mm <sup>2</sup>
Restrained Shrinkage/Expansion (EN 12617-4)	≥ 0.8 N/mm <sup>2</sup>
Capillary Water Absorption (EN 13057)	≤ 0.5 kg/m <sup>2</sup> h <sup>0.5</sup>
Service Temperature Range (after final cure)	(-30 °C) – (+80 °C)
Release of Dangerous Substances	See SDS.
Reaction to Fire (EN 13501-1)	A1

#### Description

Polymer reinforced, cement based surface repair mortar.

#### Fields of Application

- Smoothing walls prior to restoration, ceramic tiles installation and painting.
- Smoothing and filling hair cracks on the surfaces of aerated concrete, brick walls.
- Repairing old, damaged renders, concrete up to 5-30 mm.

#### Properties

- High adhesion strength.
- Smooth and solid surface.
- Resistant to freeze and thaw.
- Applicable between 5-30 mm thickness.
- Easily applicable.

#### Preparation of Substrates

- The substrates must be dry, clean and solid.
- The substrates to be coated should be free of adhesion preventive foreign substances such as dust, dirt, mould oil, paint etc.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.
- Before the application, the surface should be dampened or primed with Kalekim Astar (Primer) for better results.
- Exposed concrete surfaces should be primed with Kalekim B-tone.

#### Application

- Pour Tamirart 30 slowly on clean water specified in the technical table and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix. Do not add any additive which is not mentioned in the instructions for the application.
- Allow the mortar to stand for 5-10 minutes to mature. After 1-2 minutes of remixing, the paste is ready for application.
- Apply mortar with a flat trowel with a firm pressure to ensure a good adhesion and should be applied not exceeding 30 mm on the surface.
- The surface should be glazed with a damp sponge.

#### Post-Application Protection & Suggestions

- When applying on walls which are directly exposed to sun or wind, it is advisable to wet the surface of Tamirart 30 for the following 24 hours after application.
- The product should be used within 60 minutes.
- Weather conditions such as high temperature, low humidity, and wind may shorten this period.
- Dispose mortars of which pot life is expired.
- Clean tools and hands with water after application.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

## 4005 Tamirart 40

### High Performance Structural Repairing Mortar (R3)



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Grey powder
Shelf Life	12 months when stored in the original sealed packing in a dry place.
<b>Application Data</b>	
Mixing Ratio	3.5 – 4.5 lt water / 25 kg powder
Application Temperature Range	(+5°C) - (+35°C)
Thickness	5-40 mm (per coat)
Pot Life	60 minutes
Consumption	1.9 – 2.0 kg/m <sup>2</sup> (per 1 mm thickness)
<b>Performance Data</b>	
Mortar Density (powder)	2.1±0.1 g/cm <sup>3</sup>
Mortar Density (fresh)	2.0±0.1 g/cm <sup>3</sup> ≥ 3.0 N/mm <sup>2</sup> (1 day)
Flexural Strength (EN 12190)	≥ 5.0 N/mm <sup>2</sup> (7 days) ≥ 7.0 N/mm <sup>2</sup> (28 days) ≥ 20.0 N/mm <sup>2</sup> (1 day)
Compressive Strength (EN 12190)	≥ 30.0 N/mm <sup>2</sup> (7 days) ≥ 40.0 N/mm <sup>2</sup> (28 days)
Elastic Modulus (EN 13412)	15000 N/mm <sup>2</sup>
Measurement of Bond Strength by Pull Off (EN 1542)	≥ 1.5 N/mm <sup>2</sup>
Restrained Shrinkage/Expansion (EN 12617-4)	1.5 N/mm <sup>2</sup>
Capillary Water Absorption (EN 13057)	≤ 0.5 kg/m <sup>2</sup> h <sup>0.5</sup>
Service Temperature Range	(-30 °C) – (+80 °C)
Release of Dangerous Substances	See SDS.
Reaction to Fire (EN 13501-1)	A1

#### Description

Cement based, high performance, fibre added, thixotropic structural repairing mortar.

#### Fields of Application

- Used for reinforcing all concrete structures,
- Repairing underwater and substructural concrete surface,
- Repairing and levelling at waterproofing, flooring and tiling applications,
- Repairing and levelling at high performance concrete structures.

#### Properties

- Thixotropic, no sagging on vertical applications.
- High adhesion strength.
- Applicable of 5-40 mm thick per coat.
- It is a structural repair mortar in R3 class according to the TS EN 1504-3.

#### Preparation of Substrates

- The substrates should be dry, clean and solid.
- The surfaces to be coated should be free of adhesive preventive foreign substances such as dust, dirt, mould oil, paint etc.
- The surfaces should be removed of low-adherence substrates by mechanical methods in order to obtain a smooth surface.
- Absorbent surfaces should be primed with Kalekim Astar (Primer).
- B-Tone must be used certainly on the applications to be made on gross concrete.
- The substrate should be dampened before the application if the surface temperature is too high.

#### Application

- Pour 25 kg Tamirart 40 in 3.5 – 4.5 lt of clean water slowly and mixed until a homogeneous mixture (3-5 min) is obtained.
- Mixing must be done with low-speed mixer.
- The prepared mortar must be rested for 3 minutes for maturation purpose. It must be mixed again for 1-2 minutes before starting application.
- The mixed mortar is ready for application.
- Tamirart 40 must be applied with a steel trowel for levelling the surface.

#### Post-Application Protection & Suggestions

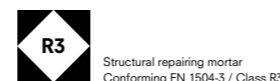
- Do not add any additives, except the ones stated in the product application instructions.
- Expired or encrusted mortar in a container must be disposed. Weather conditions such as high temperature, low humidity, wind may shorten this period.
- The product should be used within its shelf life. Products which have completed their shelf life should not be applied.
- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity, imminent rain or frost. Hot surfaces should be dampened before application.
- Ensure that the air and surface temperatures are above +5 °C and the surface is rain free during application and 24 hours following the application.
- Surface and ambient temperature should be between + 5 °C and + 35 °C during application.
- The consumption values in technical table refers to an average consumption amounts. It may vary depending on the application conditions and surface properties.
- Since it contains cement, irritates to eyes, respiratory system and skin. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Maximum 3 pallets should be stacked on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned storage conditions.

#### Packaging

- 25 kg multi-ply paper bags.



Structural repairing mortar  
Conforming EN 1504-3 / Class R3



## 4004 Tamirart S40

### High-Strength Structural Repairing Mortar (R4)



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Grey powder
Shelf Life	12 months when stored in the original sealed packing in a dry place.
<b>Application Data</b>	
Mixing Ratio	2.5 – 3.5 lt water / 25 kg powder
Application Temperature Range	(+5°C) - (+35°C)
Application Thickness	Min. 5 mm - Max. 40 mm
Pot Life	Min. 1 hour
Ready for Use	24 hours
Consumption	20 kg/m <sup>2</sup> (per 10 mm thickness)
<b>Performance Data</b>	
Flexural Strength (EN 12190)	≥ 3.0 N/mm <sup>2</sup> (7 days) ≥ 5.0 N/mm <sup>2</sup> (28 days) ≥ 7.0 N/mm <sup>2</sup> (1 day)
Compressive Strength (EN 12190)	≥ 20.0 N/mm <sup>2</sup> (7 days) ≥ 40.0 N/mm <sup>2</sup> (28 days) ≥ 55.0 N/mm <sup>2</sup> (28 days)
Elastic Modulus (EN 13412)	20000 N/mm <sup>2</sup>
Bonding to Concrete (EN 1542)	≥ 2.0 N/mm <sup>2</sup>
Restrained Shrinkage/Expansion (EN 12617-4)	≥ 2.0 N/mm <sup>2</sup>
Capillary Water Absorption (EN 13057)	≤ 0.5 kg/m <sup>2</sup> h <sup>0.5</sup>
Service Temperature Range	(-30 °C) – (+80 °C)
Release of Dangerous Substances	See SDS.
Reaction to Fire (EN 13501-1)	A1

#### Description

Sulphate and chloride resistant, cement based, thixotropic structural repairing mortar having polymer and fiber addition.

#### Fields of Application

- Repairing damaged high strength concrete
- Protection of concrete against sulphates and chlorides
- Repairing underwater and substructural concrete members
- Repairing tie-rod holes on concrete structure
- Repairing concrete structures which are subject to sea water
- Repairing surface defects between 5-40 mm thickness at single coat

#### Properties

- Resistant to sulphates and chlorides
- High adhesion strength
- High compression strength
- Resistant to freeze thaw cycle
- Resistant to water
- Adjustable viscosity
- Suitable for vertical and overhead application
- Non-corrosive

#### Preparation of Substrates

- The substrates must be dry, clean and solid.
- The substrates to be coated should be free of adhesion preventive foreign substances such as dust, dirt, mould oil, paint etc.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.
- Before the application, the surface should be dampened or primed with Kalekim Astar (Primer) for better results.
- Exposed concrete surfaces should be primed with Kalekim B-tone.
- Recommended to apply Tamirart AC with a brush for better adhesion on the reinforcement before the application.

#### Application

- Pour Tamirart S40 slowly on the amount of clean water specified in the technical table and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix. Do not add any additive which is not mentioned in the instructions for application.
- The prepared mortar must be applied without waiting.
- Apply mortar with a flat trowel with a firm pressure to ensure a good adhesion at a thickness not exceeding 40 mm.

#### Post-Application Protection & Suggestions

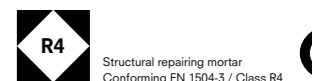
- When a smooth surface finish is desired, the mortar should be rested until it runs dry a bit. Then some water should be sprayed on the surface with a brush and mortar is applied with a steel or wooden trowel.
- The product should be used within 60 minutes. Weather conditions such as high temperature, low humidity, and wind may shorten this period.
- Dispose mortars of which pot life is expired.
- Clean tools and hands with water after application.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Maximum 3 pallets should be stacked on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned storage conditions.

#### Packaging

- 25 kg multi-ply paper bags.



Structural repairing mortar  
Conforming EN 1504-3 / Class R4



# 4410 Tamirart AC

## Corrosion Inhibitor, Adhesion Improver Coating and Primer Mortar



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Red powder	
Shelf Life	12 months when stored in the original sealed packing in a dry place.	
<b>Application Data</b>		
Application Temperature	(+5°C) - (+30°C)	
Mixing Ratio	4.5 - 5.25 liters water / 25 kg powder (brush/roller application)	
Pot Life	60 min	
Consumption	2 kg/m <sup>2</sup> (per 1 mm thickness)	
Waiting Time Between Each Coat	4 - 5 hours	
Application Thickness	1 mm	
<b>Performance Data</b>		
Compressive Strength (28 days; EN 196-1)	60 - 75 N/mm <sup>2</sup>	
Flexural Strength (28 days; EN 196-1)	5 - 10 N/mm <sup>2</sup>	
Bonding to Concrete (28 days; EN 1542)	1.5 - 2.5 N/mm <sup>2</sup>	
Resistance to Corrosion	Test passed	
Dangerous Substances	See SDS.	
Reaction to Fire (EN 13501-1)	A1	

### Description

Cementitious, one-component, polymer modified, corrosion inhibitor, adhesion improver coating and primer mortar.

### Fields of Application

- Protection of concrete reinforcing rods by corrosion-inhibiting.
- Adhesion improvement of repair mortars.

### Properties

- Applicable by brush or roller.
- Excellent adhesion on concrete and steel.
- Resistant to water, humidity and chlorides.
- Resistant to de-icing salts.
- Protection of reinforcing rods.

### Preparation of Substrates

- Surface should be cleaned from oil, gress and rust which may prevent adhesion. If necessary oil removers should be used.
- Surface should be cured and rigid.
- Be sure that the surface is damp but not wet.

### Application

- Pour Tamirart AC on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix. Do not add any additive which is not mentioned in the instructions for the application.
- Allow the mortar to stand for 5 minutes to mature. After remixing for 1-2 minutes, the paste is ready for application.

### As a primer on concrete;

- Application should be in maximum 1 mm thickness. For highly absorbent surfaces, the second layer should be applied after the first layer is dried.
- For very porous and highly absorbing subfloors a second layer should be used. Do not apply the second layer until the first layer has dried completely.
- Concrete surfaces can be covered with repair mortar 30 minutes after the application is completed.

### As an adhesion improver coating on steel;

- Application should be done in two layers of 1 mm thickness each by a medium hard brush.
- Concrete surfaces and reinforcements can be covered with repair mortar 30 minutes after the second coat is applied.

### Post-Application Protection & Suggestions

- The product should be used within 60 minutes. Weather conditions such as high temperature, low humidity, and wind may shorten this period.
- Dispose mortars of which pot life is expired.
- Clean tools and hands with water after application.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Maximum 3 pallets should be stacked on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- 25 kg multi-ply paper bags.

# 4101 Tamirart EP

## Epoxy Based Repair, Anchorage, Assembly Mortar



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Component A: Creme-beige colored paste Component B: Black liquid	
Shelf Life	12 months when stored in the original sealed packing in a dry place.	
<b>Application Data</b>		
Application Temperature Range	(+10°C) - (+35°C)	
Pot Life	30 minutes at 30°C (Pot life is shortened as the temperature increases.)	
Density	Approximately 1.65 g/cm <sup>3</sup>	
Readiness for Traffic	24 hours at 23°C	
Consumption	1.70 kg/m <sup>2</sup> (per 1mm thickness)	
<b>Performance Data</b>		
Bonding Strength on Concrete (EN1542)	≥ 4 N/mm <sup>2</sup>	
Compressive Strength (7-Day) (EN 12808-3)	≥ 60 N/mm <sup>2</sup>	
Elastic Modulus (EN 13414)	~5,400 N/mm <sup>2</sup>	
Change of Volume	Shrink free.	
Dangerous Substances	See SDS.	

### Description

Epoxy resin based, two-component, solvent-free, thixotropic, structural adhesion, repair, anchorage and assembly material that is resistant to chemicals.

### Fields of Application

- Repairs of structural concrete and fractures.
- Fixation of materials such as rails and balustrades.
- To support embedded items, and anchorage pins and bolts.
- Repairs of industrial purpose floors and edges of dilatation joints.
- Filling of holes and voids.
- Mounting of connecting rods and fixation of injection wall plugs.
- Achieving adhesion between and among concrete, stone, metal, wood, mortar, brick, prefabricated concrete, epoxy, polyester, glass, PVC, CTP pieces.
- Adhesion of metal profiles onto each other and concrete.
- Adhesion of floor and wall ceramic tiles, natural stone, granite and marble plates.
- Repairs of grouting and static fractures.
- Bonding of Kalekim Dilatation Tape.

### Properties

- Ensures excellent adhesion.
- High initial strength.
- Resistant to heavy load traffic.
- Provides high chemical and mechanical resistance.
- Resistant to short term temperature changes.
- Does not shrink (shrink free).
- Impermeable against liquids and vapor/steam.
- Resistant to freeze-thaw cycles.
- Easy to apply.
- Solvent-free.
- Suitable for use in interior and exterior areas.
- Suitable for adhesion on dry or moist concrete.
- Does not sag up to 10 mm on vertical surface applications.
- 30-minute pot life at 30°C provides ease of application.
- Does not require primer.

### Preparation of Substrates

- Prior to application the material must be let stand in room temperature (23 ± 3 °C) for a period of 1

day. The consistency of the material could thicken at lower temperatures.

- Care must be taken to ensure that the application surface is dry and its humidity is at most 4%. Application must be avoided under dew point conditions.
- When the product is used for adhesion, the surface must be clean and cleared of materials that could prevent adhesion such as construction debris, grease, paint, rust, dirt and dust.
- In applications on surfaces such as concrete and stone, loose and weak sections must be completely removed from the surface.
- Steel surfaces should be completely cleaned from rust and dirt.
- Epoxy surfaces should be cleaned by etching with corundum.
- In applications on surfaces such as PVC, CTP, ceramic, glass; surface must be primed with Tecnica 142 and the application must be made when the primer is still wet.

### Preparation of Mixture

- Prior to the start of the application, protective gloves and preferably protective glasses must be worn.
- When preparing the mixture, Component B must be added on top of Component A and the mixture must be mixed by using an appropriate mixer operated at 400-600 cycles/minute until a homogeneous mix is obtained and the color of the homogenous mixture turns to gray.
- Additives that are not indicated in the application instructions must not be added to the mixture.

### Application

- Before application, let the mixture sit until the air that is entrapped inside the mixture is removed.
- Tamirart EP is applied to the surface with a trowel or a spatula.
- The holes opened for reinforcement bars must be cleaned with air thoroughly. The holes should be 6 mm wider than the reinforcement bar.
- The material can easily be applied with a mortar gun.
- Maximum application thickness in a single coat should be 30 mm.

### Post-Application Protection & Suggestions

- The mixture prepared as explained above must be used within 30 minutes. Mixture with expired pot life or which is hardened must not be used and must be disposed of.
- Do not mix the product with water or solvent.
- The tools used must be cleaned by using a solvent based cleaning agent immediately after the application. Upon hardening the material on the tools could only be cleaned by employing mechanical methods.
- The work environment must be well ventilated during application.
- Gloves, glasses and a mask must be used during application.
- In case of skin and eye contact wash with plenty of water.
- The material smeared on any surface must be cleaned promptly before it solidifies. Otherwise, it will be necessary to employ mechanical methods to clean the material.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- A+B Set: 5 kg
- Component A: 4 kg
- Component B: 1 kg

## 4105 Tamirart SL

### Epoxy Based Flowable Adhesive



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Component A: Epoxy resin Component B: Epoxy resin A+B : Grey-Fume	
Mixed Density	1.64±0.03	
Solid Content	% 100	
Viscosity	~10000 mPa.s	
Shelf Life	12 months when stored in the original sealed packing in a cool, dry place.	
<b>Application Data</b>		
Mixing Ratio	A:B / 3 kg :1.5 kg	
Application Temperature Range	(+10°C) - (+30°C)	
Pot Life	90 minutes	
Covering with Freshly Mixed Concrete	Max. 45 minutes	
Full Cured (+20 °C)	7 days	
Application Thickness	Min. 0.5 mm / Maks. 30 mm	
Consumption	1.60 kg/m <sup>2</sup> (per 1 mm thickness)	
<b>Performance Data</b>		
Compressive Strength (EN 12190)	≥ 50.0 N/mm <sup>2</sup> (1 day) ≥ 100.0 N/mm <sup>2</sup> (7 days)	
Flexural Strength (EN 12190)	≥ 30.0 N/mm <sup>2</sup> (1 day) ≥ 35.0 N/mm <sup>2</sup> (7 days)	
Shear Strength (EN 12003)	>15.0 N/mm <sup>2</sup> (1 day)	
Bonding to Concrete (EN 1542)	≥ 3.5 N/mm <sup>2</sup> (7 days)	
Bonding to Steel (EN 1542)	≥ 10 N/mm <sup>2</sup> (7 days)	
Elastic Modulus (EN 13412)	> 5000 N/mm <sup>2</sup> (28 days)	
Dangerous Substances	See SDS.	
Reaction to Fire	Class E	

#### Description

Epoxy-based, two-component, solvent-free, self-leveling adhesive that increases the adherence between fresh concrete and existing concrete.

#### Fields of Application

- Bonding between fresh concrete and existing, hardened concrete.
- Protection of the reinforcements against corrosion before the application of structural repair mortars.
- Used as an adhesive for rods on horizontal surfaces and placing anchor elements.

#### Properties

- Provides excellent bonding between fresh concrete and hardened concrete.
- Adheres very well to different building materials such as concrete, stone, metal.
- Perfectly protects the reinforcement against corrosion.
- Provides perfect adhesion even on damp surfaces
- Solvent free
- Easy to apply with brush or directly pouring
- Does not require primer.

#### Preparation of Substrates

- The substrates must be dry, clean and solid. Laitance, ice, ponding, grease, oil, coatings etc. must be free of substances. Particularly oil stains and layers containing paraffin should be completely cleaned.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.
- The surface to be applied should be dry and its humidity should be maximum 4%. Application should not be under dew point conditions.
- Metal surfaces should be free of rust and dirt.
- Any water leakages on the surface must be plugged.

#### Preparation of Mixture

- Prior to application the material must be let stand in room temperature (23 ± 3 °C) for a period of 1 day. At low temperatures, the consistency of the material may increase.
- Tamirart SL has two parts in pails, produced according to right mixing ratio. Component B should be added into Component A without any remaining material in the pail.
- When preparing the mixture, Component B must be added on top of Component A and the mixture must be mixed by using an appropriate mixer operated at 300 cycles/minute until a homogeneous mix is obtained and the color of the homogenous mixture turns to gray.
- Components are ready to use. No additives should be added such as solvents.

#### Application

- Tamirart SL is applied to the surface with a brush or roller.
- Fresh concrete cast should be started within 5-40 minutes depending on air conditions.
- The holes drilled for vertical anchor should be thoroughly cleaned with compressed air and filled with Tamirart SL. The appropriate anchor rod should be screwed in the hole.
- The holes opened in the rods should be thoroughly cleaned with air, and the hole to be drilled should be 6 mm wider than the reinforcement.
- Tamirart SL can be applied easily with mortar gun.

#### Post-Application Protection & Suggestions

- During the application the substrate and ambient temperature should be between 5 - 30°C. For full curing of material, both the substrate and ambient temperature shouldn't be under allowed application temperature.
- The mixture prepared as explained above must be used within 90 minutes. Mixture with expired pot life or which is hardened must not be used and must be disposed of.

- Do not mix the product with water or solvent.
- The tools used must be cleaned by using a solvent based cleaning agent immediately after the application. Upon hardening of the materials on the tools could only be cleaned by employing mechanical methods.
- Working time and pot life of resin-based systems get less in low temperatures and higher in high temperatures.
- Mixing should be done with mechanical mixers.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- The application area should be ventilated during application.
- Gloves, glasses and mask should be used during application. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +25°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned storage conditions.

#### Packaging

- Component A: 3.0 kg
- Component B: 1.5 kg
- A+B Set: 4.5 kg

Complies with  
EN 1504-4 / EN 1504-6



## 4210 Groutart

### High Strength Grout Mortar



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Grey powder	
Shelf Life	12 months when stored in the original sealed packing in a dry place.	
<b>Application Data</b>		
Mixing Ratio	2.5 - 3.5 lt water / 25 kg powder	
Application Temperature Range	(+5°C) - (+35°C)	
Pot Life	60 minutes	
Ready for Use	24 hours	
Consumption	2 - 2.4 kg of powder (for 1 m <sup>3</sup> mortar)	
Application Thickness	Min. 10 mm / Max. 150 mm	
<b>Performance Data</b>		
Compressive Strength (EN 12190)	≥ 30.0 N/mm <sup>2</sup> (7 days) ≥ 70.0 N/mm <sup>2</sup> (28 days)	
Flexural Strength (EN 12190)	≥ 5 N/mm <sup>2</sup> (1 day) ≥ 7 N/mm <sup>2</sup> (28 days)	
Modulus of Elasticity (EN 13412)	≥ 20000 N/mm <sup>2</sup>	
Bonding to Concrete (EN 1542)	≥ 2.0 N/mm <sup>2</sup>	
Capillary Water Absorption (EN 13057)	≤ 0.5 kg/m <sup>2</sup> h <sup>0.5</sup>	
Restrained Shrinkage-Expansion (EN 12617-4)	≥ 2.0 N/mm <sup>2</sup>	
Capillary Water Absorption (EN 13057)	≤ 0.5 kg/m <sup>2</sup> h <sup>0.5</sup>	
Service Temperature Range	(-30 °C) - (+80 °C)	
Release of Dangerous Substances	See SDS.	
Reaction to Fire (EN 13501-1)	A1	

#### Description

Cement based, polymer modified, non-shrink, high fluid, single component grout mortar.

#### Fields of Application

- Precision grouting of steel column base plates.
- Prefabricated concrete installation.
- Precision grouting of industrial machines like generators, pumps, etc.
- Concrete repairing.
- Suitable for interior and exterior applications.

#### Properties

- Maximum application thickness is 150 mm.
- High adhesion strength.
- High compression strength.
- Resistant to freeze thaw cycle.
- Not affected by weather conditions.
- Resistant to water.
- No segregation and low bleeding.
- Easy to prepare and apply.

#### Preparation of Substrates

- The substrates must be dry, clean and solid.
- The substrates to be coated should be free of adhesion preventive foreign substances such as dust, dirt, mould oil, paint etc.
- Damaged or contaminated concrete should be removed.
- The concrete substrate should be water saturated, without free standing water, at the moment of application.
- Formwork should be fixed well.
- Molds should have enough strength, be lined or coated with a bond-breaker for easy removal and all joints around the molds should be sealed with suitable material to ensure impermeability. Impermeability can be tested by filling water into the molds.
- Surface should be roughened by pressurized water or sanding.

#### Application

- Pour half of the 25 kg of Groutart in 2.5-3.5 lt of clean water slowly, mix well for 3-4 minutes until it is homogeneous. Add the remaining powder into the mortar and continue until no lumps remain. A low speed mixer is recommended to mix. Do not add any additives to the product other than those stated in the application instructions.
- Do not add water into the mortar while curing.
- Be sure that there are no remaining air bubbles in the mortar which may cause adherence problems by inhibiting the surface contact to the concrete.
- Ensure that enough pressure is provided for fluidity.
- It is recommended to complete the process within a maximum of 15 minutes. For the applications which cannot be finished in 15 minutes, use a pump.

#### Post-Application Protection & Suggestions

- Clean application tools and hands with plenty of water after application.
- Do not add any additive which is not mentioned in the instructions for the application.
- Pour from one side only.
- After application, curing surface should not be neglected.
- Application temperature should be between +5°C and +35°C.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Maximum 3 pallets should be stacked on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- 25 kg multi-ply paper bags.



Structural Grouting Mortar  
Conforming EN 1504-3 / Class R4



## 4211 Groutart Rapid

### Fast Setting High Strength Grout Mortar



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Grey powder
Shelf Life	9 months when stored in the original sealed packing in a dry place.
<b>Application Data</b>	
Mixing Ratio	2.75 – 3.25 lt water / 25 kg powder
Application Temperature Range	(+5°C) - (+35°C)
Pot Life	5-20 minutes
Ready for Use (20 °C)	1 hour
Consumption	2.30 kg of powder (for 1 dm <sup>3</sup> mortar)
Application Thickness	Min. 10 mm / Max. 150 mm
<b>Performance Data</b>	
Compressive Strength (EN 12190)	≥ 15.0 MPa (1 hour) ≥ 40.0 MPa (1 day) ≥ 50.0 MPa (7 days) ≥ 70.0 MPa (28 days)
Flexural Strength (EN 12190)	≥ 7.0 MPa (1 day) ≥ 10.0 MPa (28 days)
Modulus of Elasticity (EN 13412)	≥ 20 GPa
Bonding to Concrete (EN 1542)	≥ 2.0 MPa
Capillary Water Absorption (EN 13057)	≤ 0.5 kg/m <sup>2</sup> h <sup>0.5</sup>
Restrained Shrinkage-Expansion (EN 12617-4)	≥ 2.0 N/mm <sup>2</sup>
Capillary Water Absorption (EN 13057)	≤ 0.5 kg/m <sup>2</sup> h <sup>0.5</sup>
Restrained Shrinkage-Expansion (EN 12617-4)	≥ 2.0 MPa
Service Temperature Range	(-30 °C) – (+80 °C)
Release of Dangerous Substances	See SDS.
Reaction to Fire (EN 13501-1)	A1

#### Description

Cement based, polymer modified, high strength, non-shrink, self compacting, one component ultra fast setting grout mortar.

#### Fields of Application

- For fixing the manhole covers.
- Repair of concrete which is needed to be opened to the traffic immediately.
- Fixation of the steel columns on the foundations.
- Fixing the industrial machines to the floor.
- Prefabricated concrete installation.
- Fixation of industrial machines as generators, compressors and pumps, etc. to the ground.
- Suitable for interior and exterior applications.

#### Properties

- Very high early strength.
- Can be opened to service in 1 hour.
- Suitable to apply up to 15 cm in one layer.
- High adhesion strength.
- High compression strength.
- Non-shrink.
- Resistant to freeze thaw cycle.
- Not affected by weather conditions.
- Resistant to water.
- No segregation and low bleeding.
- Easy to apply, self compacting and fluid consistency.

#### Preparation of Substrates

- The application surface must be sound, dry and clean.
- The surfaces to be coated should be free of adhesion preventive foreign substances such as dust, dirt, mould oil, paint etc.
- Damaged concrete should be removed.
- The application surface should be damp but not wet.

- Molds should be fixed well.
- Molds should have enough strength, be lined or coated with a bond- breaker for easy removal and all joints around the molds should be sealed with suitable material to ensure impermeability. Impermeability can be tested by filling water into the molds.
- Surface should be roughened by pressurized water or sanding.

#### Application

- Pour entire of the 25 kg of Groutart Rapid in 2.75-3.25 lt of clean water slowly within 30 seconds and mix with a mixer at low speed (max.500 cycle/ min)for 2-3 minutes to obtain a homogeneous and lump-free mixture. Do not add any additives to the product other than those stated in the application instructions.
- Do not add water into the mortar while curing.
- Prepared mortar should be applied immediately.
- Be sure that there are no remaining air bubbles in the mortar which may cause adherence problems by inhibiting the surface contact to the concrete.
- Ensure that enough pressure is provided for fluidity.
- It is recommended that application should be completed in 10 minutes.
- For the applications which cannot be finished within 10 minutes, use a pump.

#### Post-Application Protection & Suggestions

- Clean tools and hands with water.
- Pour from one side only.
- After application, the curing surface should not be neglected.
- During the application the substrate and ambient temperature should be between +5 between +35 °C.
- Do not add any cement, aggregate etc. into the mixture during the application.
- Do not use vibrator for placing the mortar.

- The mixing water ratio should be within the recommended limits.
- Avoid material from contact with skin and eyes. In case of contact, wash your skin with water and go to the doctor immediately. For further information refer to the Safety Data Sheet.

#### Storage

- Stack the packages maximum 10 layers and should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 9 months conditional to complying with the above mentioned storage conditions.

#### Packaging

- 25 kg multi-ply paper bags.



Structural Grouting Mortar  
Conforming EN 1504-3 / Class R4



## 4110 Groutart EP

### Epoxy Based Grout Mortar



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Component A: Clear liquid Component B: Clear liquid Component C: Gray powder
Shelf Life	12 months when stored in the original sealed packing in a dry place.
<b>Application Data</b>	
Application Temperature	(+5°C) - (+30°C)
Pot Life	30 minutes at 30°C
Density	1-10 mm (for single layer)
Mix	2.24 g/cm <sup>3</sup>
Component A	1.14 g/cm <sup>3</sup>
Component B	1.02 g/cm <sup>3</sup>
Component C	2.70 g/cm <sup>3</sup>
Application Thickness	Minimum 12 mm Maximum 50 mm
Consumption	1.40 kg/m <sup>2</sup> (per 1 mm thickness)
<b>Performance Data</b>	
Shear Adhesion Strength (TS EN 1346) Concrete (7-days)	~ 3.5 N/mm <sup>2</sup> (breaking within the concrete)
Steel (7-days)	~ 20 N/mm <sup>2</sup>
Flexural Strength (EN 12808-3)	> 30 N/mm <sup>2</sup> (1 day) > 35 N/mm <sup>2</sup> (7 days)
Compressive Strength (EN 12808-3)	> 100 N/mm <sup>2</sup> (1 day) > 120 N/mm <sup>2</sup> (7 days)
Modulus of Elasticity	> 20 GPa
Dangerous Substances	See SDS.

#### Description

Epoxy resin based, three-component, solvent-free, chemical resistant, self settling grouting mortar with well graded aggregates.

#### Fields of Application

- Structural and fracture repairs of concrete.
- Fixation of rails.
- To support embedded items, anchorage pins and bolts.
- Filling of holes and voids.
- Mounting of connecting rods and fixation of injection plugs.
- Anchorage of machinery on concrete.
- Machinery foundations.
- Adhesion of metal profiles onto the concrete.
- In construction of bridges and tunnels.

#### Properties

- Solvent free.
- Can be applied without a primer.
- Easy to apply.
- Self settling.
- Does not shrink (shrink-free).
- High initial strength.
- Resistant to heavy load traffic.
- Provides high mechanical resistance.
- Resistant to short-term temperature changes.
- Resistant to liquid and water vapor.
- Resistant to freeze-thaw cycles.
- Suitable for use in internal and external spaces.

#### Preparation of Substrates

- Prior to the application, the material must be let stand in room temperature (23 ± 3 °C) for a period of 1 day. Increase in viscosity must be expected at low temperatures.
- Care must be taken to ensure that the application surface is dry and the humidity is at most 4%. Application must be avoided under dew point conditions.
- When the product is used for adhesion, the surface must be clean and free of materials such as construction debris, grease, paint, rust, dirt and dust that could prevent adhesion.
- In applications on surfaces such as concrete and stone, mobile and weak sections must be completely removed from the surface.

- In applications on metal surfaces; the surface must be prepared to meet a standard such as SA2.5 by shotblasting and/or another suitable method, so it is free of rust and any material that could prevent adhesion.
- On epoxy surfaces, the surface must be cleaned by abrasion through sanding.

#### Preparation of Mixture

- Prior to the start of the application, protective gloves and preferably protective glasses must be worn.
- When preparing the mixture, Component B must be added on top of Component A and the mixture must be mixed by an appropriate mixer operated at 400-600 cycles/minute until a homogeneous mix is obtained. After homogeneity is achieved, Component C must be added slowly into the liquid mix while the mixture is continued to be mixed until a homogenous mixture is obtained.
- Additives that are not indicated in the application instructions must not be added to the mixture.

#### Application

- Before applying the mixture, let the mixture sit until the air that is entrapped inside the mixture is removed.
- Pour mortar into prepared opening (hopper) and maintain enough static pressure (15-20 cm).
- Ensure that entrapped air can easily escape.
- Use steel rods or chains to assist the flow of grout where necessary.

#### Connecting Rods

- The holes, into which the connecting rods will be placed, must be drilled at least 10 mm larger than the diameter of the rod to be used (Ø+10mm).
- Inside of the holes, which are drilled as described, must be cleaned by means of air and brush to remove any adhesion preventing dust that remains inside.
- The holes must be filled with prepared Groutart EP and the rods to be inserted must be placed in the holes by twisting around.
- Care must be taken to apply the mortar to overflow slightly from the holes. Excessive mortar must be cleaned and the site of application around the rod must be smoothed.

- The tools used must be cleaned by using a solvent based cleaning agent immediately after the application. Upon hardening, the material on the tools could only be removed by employing mechanical methods.

#### Post-Application Protection & Suggestions

- Do not mix the product with water or solvent.
- The tools used must be cleaned by using a solvent based cleaning agent immediately after the application. Upon hardening the material on the tools could only be cleaned by employing mechanical methods.
- The work environment must be well ventilated during the application.
- Gloves, glasses and a mask must be used during application.
- In case of skin and eye contact wash with plenty of water.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- A+B+C Set: 12 kg
- Component A: 1.6 kg
- Component B: 0.4 kg
- Component C: 10 kg

Complies with  
TS EN 1504-6 standard



## 4201 Mastar 10

### Self Leveling Screed



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Grey powder	
Shelf Life	12 months when stored in the original sealed packing in a dry place.	
<b>Application Data</b>		
Application Temperature	(+5°C) - (+30°C)	
Mixing Ratio	4.75-5.25 lt water / 25 kg powder	
Pot Life	20 minutes	
Ready for Use	8 Hours (set to light traffic) 24 hours (waiting time before bonding) 48 hours (complete curing)	
Consumption	1.5-1.7 kg/m <sup>2</sup> (per 1 mm thickness)	
<b>Performance Data</b>		
Compressive Strength (EN 12808-3)	≥ 20 N/mm <sup>2</sup> (28 days) – C20	
Flexural Strength (EN 12808-3)	≥ 4 N/mm <sup>2</sup> (28 days) – F4	
Abrasion Resistance (TS EN 13813)	≤ 20 cm <sup>3</sup> /50 cm <sup>2</sup> – A22	
Service Temperature Range	(-30°C) – (+80°C)	
Dangerous Substances	See SDS.	
Reaction to Fire	A1	

#### Description

Self leveling flooring compound, smoothing the differences in thicknesses from 2.5 to 10 mm on new and existing interior floors where a high resistance to loads and traffic is required.

#### Fields of Application

- Leveling concrete slabs and cementitious screeds.
- Under wood, laminate parquet, carpet, PVC, linoleum and ceramic flooring.
- For floors subject to high loads and heavy traffic like depots against dusting and abrasion.

#### Properties

- Perfectly self leveling.
- High adhesion strength.
- Can be spread in thicknesses up to 10 mm per coat without shrinkage, cracking or crazing.
- Develops very high compressive and flexural strength.
- Resistant to abrasion.

#### Preparation of Substrates

- The substrate must be solid, dry, free of dust, loose parts, paint, wax, oils, rust and traces of gypsum.
- The substrates to be coated should be free of adhesion preventive foreign substances such as dust, dirt, mould oil, paint etc.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.
- Use Tamirart series repairing mortars in case of any loose and uneven substrates to get a sound and flat surface.
- Dusty and very porous concrete surfaces must be treated with Kalekim Astar (Primer) or B-Tone.

- Polystyrene foam should be placed to separate the self leveling screed from walls or other structural elements, to avoid the risk of cracking during drying of the screed due to expansion.
- In order to prevent leveling difference at large areas, application should be done by determining maximum 3x3 meter sized areas.
- Application thickness should be determined according to the surface smoothness and porosity.
- Gage rods should be used at large areas or if the surface deformity is high.

#### Application

- Pour Mastar 10 slowly on the amount of clean water specified in the technical table and mix to obtain a homogeneous self leveling lump free mix. A low speed mixer is recommended to mix.
- Allow the paste to stand for 2 - 3 minutes to mature. After remixing, it is ready for application.
- Pour out the mixture onto the surface and distribute evenly with a smoothing trowel or screeding rake. Where possible, spread to the desired thickness in one application. Flow and surface quality can be improved by removing air from the fresh compound using a spike roller.

#### Post-Application Protection & Suggestions

- The product should be used within 20 minutes. Weather conditions such as high temperature, low humidity, and wind may shorten this period.
- Do not add any additive which is not mentioned in the instructions for the application.
- Dispose mortars of which pot life is expired.
- The floor should be protected from wind and direct sunlight during application.

- Mastar 10 will be ready for application of resilient, carpet, and laminated parquet, PVC, ceramic and wood floor coverings after 24 hours at 23°C (time can vary depending on the thickness of the leveling, the room temperature and humidity).
- Fresh surfaces should be protected from direct sunlight, strong air stream, high air temperature (above +35°C), rain and frost.
- Hands and equipment used should be washed well after application.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Maximum 3 pallets should be stacked on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- 25 kg multi-ply paper bags.

## 4505 Kalekim Astar

### Acrylic Primer



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	White liquid	
Shelf Life	12 months when stored in the original packing.	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+30°C)	
Minimum Drying Time	45 - 60 minutes	
Pot Life	20 minutes	
Consumption	150 gr/m <sup>2</sup>	

#### Description

Ready to use, acrylic based primer that increases the capacity to adhere on the surfaces by balancing the absorbency of surfaces.

#### Fields of Application

- Improving the adhesion of cementitious compounds on concrete, gypsum, ceramic and marble surfaces.
- Treating surfaces against dusting and absorption, prior to ceramic tiling, screeding, waterproofing and painting.

#### Properties

- Reduces porosity and absorption.
- Extends working time for cementitious and gypsum based finishing products.
- Fixes the dusting parts on the surface and improves adhesion of paint, tiles by adhesive and mortar for renders.
- Prevents shrinkage cracks.
- Applicable to any surface.
- Forms a flexible, compact, shiny film.
- Prevents chemical reaction between moisture and sulfate and cement aluminates in tile adhesive, that leads to the formation of salt named "ettringite" which is the cause of tile breaking away from gypsum substrate.
- Prevents rapid absorption of water by the substrate.
- Ready to use. Easily applicable with roller and brush.

#### Preparation of Substrates

- Surfaces must be cured.
- Surface should be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.

#### Application

- Kalekim Astar should be applied with a brush or roller after mixing well. Do not add any additive.
- 2 layers should be applied on highly absorbent surfaces like gypsum, concrete and screed.

#### Post-Application Protection & Suggestions

- Drying time is 45 - 60 minutes. Do not apply anything within this period.
- Surface temperature must be minimum 5°C and there must not be precipitation.
- Hands and equipment used should be washed well.
- Is not suitable for wet-duty areas or areas which are permanently submerged.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- For further information refer to the Safety Data Sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- The opened drums should be closed immediately; the drums left open should be disposed of.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- 5 lt drum.

## 4506 Kalekim Dolgulu Astar

### Smooth Surface Primer



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Light blue liquid
Structure	Polymer dispersion based
Density	Approx. 1.17 gr/cm <sup>3</sup>
Shelf Life	12 months when stored in the original packing.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+30°C)
Minimum Drying Time	45 - 60 minutes
Waiting Time After Application	Max. 48 hours
Consumption	100 gr/m <sup>2</sup> per coat (depending on the evenness and the porosity of the surface)



#### Description

Solvent - free, polymer dispersion based, pigmented primer suitable for new ceramic tile over existing tile.

#### Fields of Application

• Smooth and dense surfaces such as tile, sandstone, marble, clinker, plywood and also absorbent surfaces such as gypsum, plaster, concrete, screed, wood.

#### Properties

- Increases the adhesion strength of tile adhesives on smooth and glossy surfaces by forming a rough surface.
- Reinforces the substrate and thus increases the adhesion of tile adhesive on unsound surfaces.
- Ready to use. Easily applicable with either roller or brush.
- Solvent free. Does not smell and does not harm the environment.

#### Preparation of Substrates

- Surfaces must be cured.
- Surface should be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.
- If necessary, surface cracks should be filled and substrate should be evened with Kalekim Tamirart series.

#### Application

- Stir Kalekim Dolgulu Astar before the application and apply with a brush or roller.
- Apply two coats absorbent substrates like gypsum, plaster, screed and concrete.

#### Post-Application Protection & Suggestions

- Drying time is 45 - 60 minutes. Do not apply anything within this period.
- Surface temperature must be min. 5°C and there must not be precipitation.
- Hands and equipment used should be washed well.
- Is not suitable for wet-duty areas or areas which are permanently submerged.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- The opened drums should be closed immediately; the drums left open should be disposed of.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- 5 kg plastic pails.

## 4507 B-Tone

### Smooth Concrete Surface Primer



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Orange
Density	Approx. 1.55 gr./cm <sup>3</sup>
Shelf Life	12 months when stored in the original packing.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+30°C)
Minimum Drying Time	45 - 60 minutes
Waiting Time After Application	Min. 24 hours
Consumption	150-250 gr./m <sup>2</sup> per coat (depending on the evenness and the porosity of the surface)
Thickness of Application	Min. 0.20 mm / Max. 0.40 mm



#### Description

Solvent - free, polymer dispersion based, pigmented, smooth concrete surface primer.

#### Fields of Application

- For indoor and outdoor applications
- For vertical and horizontal surfaces
- For ceilings
- Adhesion improving primer for the application of gypsum, lime and cement based plasters on smooth concrete surfaces

#### Properties

- Increases the adhesion strength of tile adhesives on smooth concrete surfaces by forming a rough surface.
- Prevents the rapid water loss of cement and gypsum based plasters and provides longer and better workability.
- Ready to use. Easily applicable with either roller or brush.
- Solvent - free. Does not smell and does not harm the environment.

#### Preparation of Substrates

- Surfaces must be cured.
- Surface should be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.
- If necessary, the surface cracks should be filled and substrate should be evened with Kalekim Tamirart series.

#### Application

- B-Tone can be applied by brush or roller after adding 4-6 lt of water into the pail of 12 kg B-Tone and mixing well with a low speed mixer. Mixing with max 500 rpm. mixer is recommended.
- The mixture in the pail should be remixed periodically during application.

#### Post-Application Protection & Suggestions

- Drying time is 45 - 60 minutes. Do not apply anything within this period.
- Surface temperature must be minimum 5°C and there must not be precipitation.
- Plaster should be applied after minimum 24 hours on B-Tone.
- Hands and equipment used should be washed well.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- For further information refer to the Safety Data Sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- The opened drums should be closed immediately; the drums left open should be disposed of.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- 12 and 25 kg plastic pails.



# 4510 Gypsastar

## Anhydrite Surface Primer



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Blue, low viscosity liquid.	
Density (g/cm <sup>3</sup> )	1.01	
Shelf Life	12 months when stored in the original packing.	
pH	7-8	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	80 - 120 minutes	
Consumption	140 - 160 gr/m <sup>2</sup> undiluted	
<b>Final Performance</b>		
Resistance to Moisture	Good	
Flexibility	Good	

Surface Type	Material Type to Be Applied	Dilution Ratio
Gypsum based substrates (like anhydrite screeds)	Cementitious adhesives, renders	No dilution
Absorbent mineral substrates (like concrete, cementitious screeds, limestone etc.)	Gypsum based plasters, screeds	1:1 with water

### Description

Ready to use acrylic based primer.

### Fields of Application

- Treatment of anhydrite screeds and building boards prior to tiling using cementitious adhesives.
- Treatment of plaster, plaster slabs, gypsum fiber boards, plaster boards, concrete, render and brickwork prior to ceramic tiling using cementitious adhesives.
- Treatment of cementitious substrates prior to the application of self leveling compounds anhydrite screeds and other mortars.
- For treating surfaces against dusting and absorption, prior to ceramic tiling, screeding, waterproofing and painting applications.
- Suitable for interior, exterior, vertical and horizontal applications.

### Properties

- Reduces porosity and absorption.
- Provides uniform absorption to the surface.
- Extends working time for cementitious and gypsum based finishing products.
- Improves the strength and solidity of the surface and adhesion of tiles by fixing the dusting parts on the surface.
- Prevents shrinkage cracks.
- Prevents chemical reaction between moisture and sulfate and cement aluminates in tile adhesive, that leads to the formation of salt named "ettringite" which is the cause of tile breaking away from gypsum substrate.
- Prevents rapid water absorption of the substrate.
- Solvent free.
- Ready to use.
- Easily applicable with roller and brush.

### Preparation of Substrates

- Surface must be cured.
- Surface must be clean, dry and free from oils, grease, residual paint and other loose material.
- Anhydrite surfaces must be completely dry (residual moisture level < 0.5%) and mechanically abraded.

### Application

- Gypsastar should be shaken just before use.
- 2 layers should be applied on highly absorbent surfaces like gypsum, concrete and screed.
- The product should be dried prior to further application.

### Post-Application Protection & Suggestions

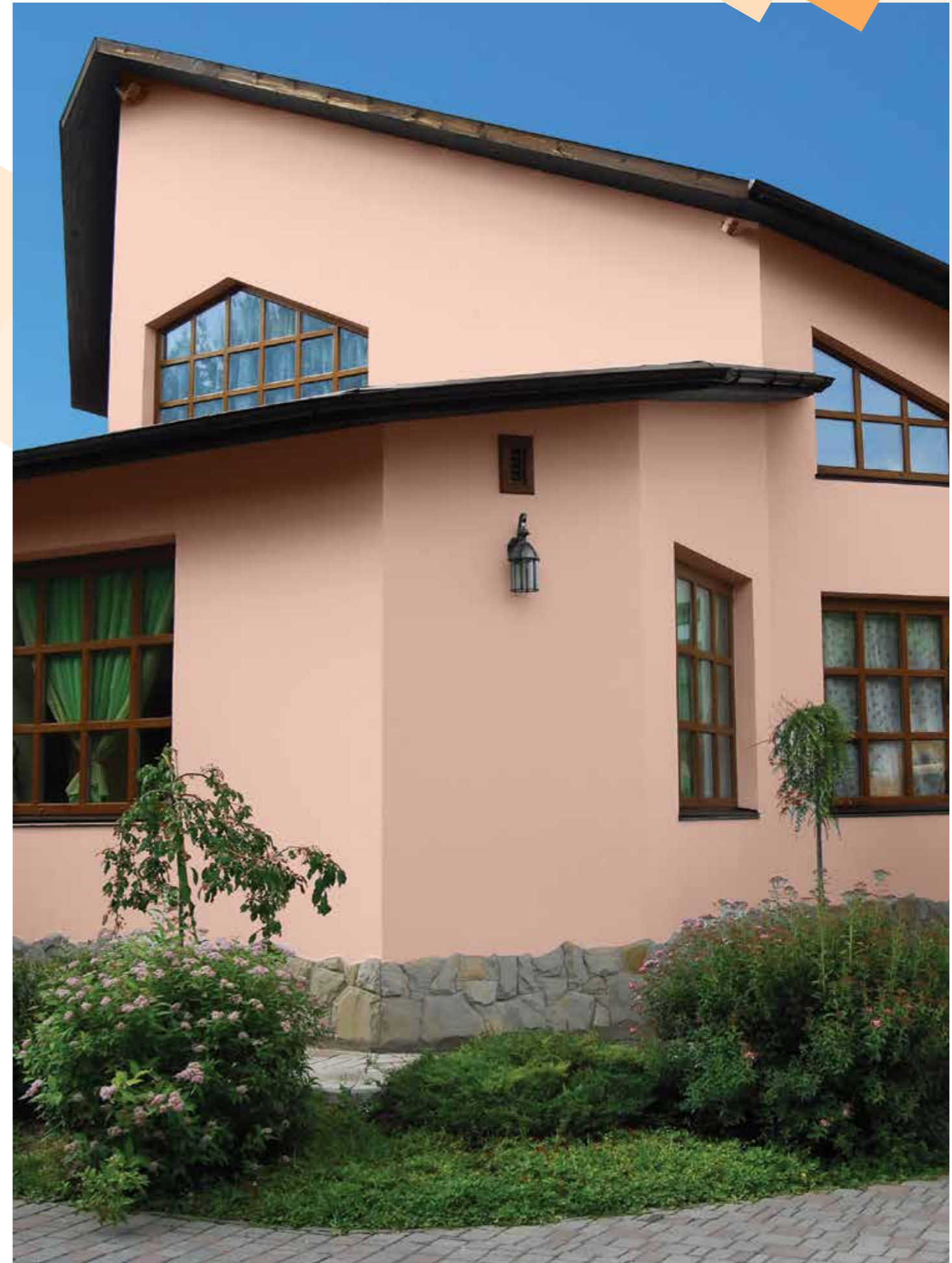
- Surface temperature must be minimum +5°C and there must not be precipitation.
- Do not apply onto magnesium substrates.
- Gypsastar is not recommended where a rising damp is present.
- Hands and equipment used should be washed well after application.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties. For further information refer to the Safety Data Sheet.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- The opened drums should be closed immediately; the drums left open should be disposed of.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- 5 lt drum.







# Renewal is in its Chemistry!

*Cleaning, care, protection!*



## Surface Cleaning & Maintenance Solutions

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180	SERACARE CEMENT REMOVER
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# Cleaning – Maintenance of Ceramics and Grouts



SERACARE Surface Cleaning and Maintenance products should be used to clean and protect ceramics and grouts over the long-term without damaging their aesthetic appearances.

SERACARE Cement Remover will easily remove any cement residues on ceramics.

SERACARE Stain Remover ensures excellent results without being abrasive on your ceramic tiles or grouts in removing difficult stains such as grease, coffee and fruit juices.

SERACARE Grouting Cleaner provides excellent results in cleaning the natural that accumulates on grouts, without being abrasive on the grouting material

SERACARE Surface Protector should be used to ensure the clean look of ceramics at all times and to prevent grouts from easily becoming dirty.

SERACARE Surface Protector may again be applied prior to grouts of porous materials such as cotto, clinker, and granite ceramic, and probable errors can thus be avoided.



**SERACARE Surface Protector**  
UV resistant, solvent based, ready to use surface protective material with excellent penetrating capacity.



**SERACARE Grout Cleaner**  
Organic based cleaning agent for removing dirt, lime and detergent residues from ceramic, porcelain ceramics and grouts without any damage.



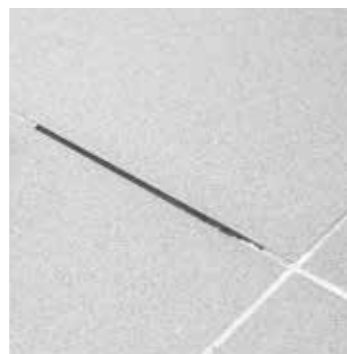
**SERACARE Cement Remover**  
Acid based cleaner to quickly remove cement residues without releasing harmful fumes.



**SERACARE Stain Remover**  
Non acidic cleaning agent for removing difficult stains such as coffee, oil, juices from granite, marble and terrazzo.



**SERACARE Grout Paint**  
Acrylic emulsion based, silicone enhanced easy clean, ready-to-use paint for internal areas which is quickly and easily applied to rejuvenate, refresh and modify the colour of cementitious grout between tiles.



**SERACARE Grout Fix**  
Acrylic resin based, silicone enhanced, flexible, non-cracking and collapsing joint grout repair paste suitable for 1-6 mm joint gaps that can be used in interiors.



## 8201 Seracare

### Cement Remover



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Transparent liquid
pH	< 1
Shelf Life	12 months when stored in the original packing.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Mixing Ratio (Cement Remover/Water)	1/1 – 1/5
Consumption	1 lt / 20 - 100 m <sup>2</sup> (Depending on the amount of cement residue)



#### Description

Acid based cleaner to quickly remove cement residues without releasing harmful fumes.

#### Fields of Application

- Cleaning off residues of cement-based products used as adhesives or for grouting ceramic surfaces.
- Cleaning cement and lime stains from the surfaces of ceramic tiles, terracotta, clinker, rustic furnishing, oven stone, natural stones, granite ceramic, porcelain ceramic and glazed ceramics on walls and floors.
- Cleaning off slight rust stains.

#### Application

- Depending on the quantity of remains, the product can be mixed with water in 1:1 to 1:5 ratios.
- Apply Seracare Cement Remover with a mop or brush.
- Let the product act for about 3-5 minutes, scrub with a brush or abrasive sponge to remove any crusting that still remains and continues scrubbing until all visible stains have disappeared.

- Remove the liquid from the floor with a sponge or squeegee or an industrial vacuum cleaner and then, rinse thoroughly and repeatedly with water.
- In case of difficult residues, apply Seracare Cement Remover without diluting and let the product act longer.

#### Post-Application Protection & Suggestions

- Before applying Seracare Cement Remover, protect everything that can be damaged by splashing with acid. Before the use, make sure that the surfaces that need cleaning are acid resistant.
- The product is not suitable for cleaning oil residues.
- The product should not come into contact with the grout for a long time.
- Always wear rubber gloves and boots, as well as protective goggles. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5 °C and +35 °C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- 1 lt plastic bottles.

## 8202 Seracare

### Stain Remover



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Transparent liquid
pH	> 13.5
Shelf Life	12 months when stored in the original packing.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Mixing Ratio (Cement Remover/Water)	1/1 – 1/5
Consumption	1 lt / 20-100 m <sup>2</sup> (Depending on the intensity of type at stain)



#### Description

Non acidic cleaning agent for removing difficult stains such as coffee, oil, juices from granite, marble and terrazzo.

#### Fields of Application

- Removing difficult stains such as coffee, wine, oil, soft drinks from polished or unpolished surfaces such as marble, ceramic, granite, rustic ceramic, cotto, non-acid resistant stones, clinker and grouts.

#### Properties

- Effective on difficult stains.
- Applicable on all surfaces.

#### Application

- Before applying Seracare Stain Remover, wash the surface with water.
- Dilute Seracare Stain Remover with water in 1:1 to 1:5 ratio depending on the intensity of stain.
- Pour Seracare Stain Remover on to surface enough to cover the entire stain and let the product act for about 3 - 5 minutes.

- Rub with sponge or brush or vacuum cleaner.
- For any stain trace left, apply in Seracare Stain Remover on the stain without diluting.
- Rinse thoroughly and repeatedly with water.
- Seracare Stain Remover should be applied by leaving it on the stain surface for a longer period of time without diluting for cleaning difficult residues.

#### Post-Application Protection & Suggestions

- The product should be tested before using on the surfaces to be applied.
- Always wear gloves and boots, as well as protective goggles. Avoid direct contact with skin and eyes. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- 1 lt plastic bottles.

## 8203 Seracare

### Grout Cleaner



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Transparent liquid
pH	< 1
Shelf Life	12 months when stored in the original packing.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Consumption	1 lt / 20-100 m <sup>2</sup> (Depending on the intensity of type at dirt)



#### Description

Organic based cleaning agent for removing dirt, lime and detergent residues from ceramic, porcelain ceramics and grouts without any damage.

#### Fields of Application

- Removing dirt, lime and detergent residues from ceramic, porcelain ceramics and grouts.
- Not useful for marble, granite and natural stones.

#### Properties

- Effective on natural dirtiness.
- Any harms for grouts thanks to organic based.
- Environmentally friendly.

#### Application

- Before the application, the surface must be sufficiently dry.
- Seracare Grout Cleaner consumption is depending on the intensity of dirt.

- Seracare Grout Cleaner spray on to grouts enough to cover the dirt.
- Seracare Grout Cleaner let the product act for about 3 - 5 minutes.
- For any dirt trace left, rub with sponge or brush.
- Rinse thoroughly and repeatedly with water.

#### Post-Application Protection & Suggestions

- Always wear rubber gloves and boots, as well as protective goggles. Avoid skin and eye contact. In case of eye contact, wash immediately with plenty of water.
- Avoid contact with reactive metals, bleacher, ammonia and bases.
- For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- 500 ml sprayable plastic bottles.

## 8251 Seracare

### Surface Protector



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Transparent liquid
Shelf Life	12 months when stored in the original packing.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	4-5 hours
Consumption	1 lt / 20-100 m <sup>2</sup> (Depending on the porosity of the surface)



#### Description

UV resistant, solvent based, ready to use surface protection material with excellent penetrating capacity.

#### Fields of Application

- Water, damp, dust and stain proofing of all types of porous materials such as concrete, cotto, clinker, ceramic, granite ceramic, brick, natural stones, terrazzo etc. and grouts for both indoor and outdoor applications, thanks to its water repellent property.
- Treating cotto and other highly porous tiles before laying with cement adhesives or before grouting leads much easier cleaning of the finished floor.

#### Properties

- Water and oil repellent.
- Prevents the appearance of efflorescence and staining.
- Brightens up the colors of the materials.
- UV resistant.

#### Application

- The surfaces to be treated with Seracare Surface Protector must be absolutely dry and cleaned of dust, grease, wax, paint etc.
- Use rubber gloves during application.

- Apply Seracare Surface Protector with a flat soft brush without diluting.
- Application should be uniform, Seracare Surface Protector must never be poured directly onto the surface that will leave patches when dry.
- Leave Seracare Surface Protector to penetrate for a few minutes and remove any excess with a cloth.
- On highly absorbent materials and in outdoor application, apply it in 2 coats to obtain better results. Wait 4-5 hours between the coats.
- For vertical surfaces apply it by spraying.
- Repeat this process in every 2 years by considering the degree of depreciation of the surface. For every repeated application, clean the surface by using appropriate Seracare products.
- After cleaning, rinse the surface with water and leave to dry. After it is dried, apply Seracare Surface Protector.
- Clean the tools and any contaminated surface with paint solvents.

#### Post-Application Protection & Suggestions

- After application, application tools can be cleaned with paint solvents.
- Before grouting, care should be taken that the product does not contact the joint gaps.

- Do not breathe vapour. Must be applied in well ventilated environments.
- Wear protective clothing when handling.
- Avoid skin and eye contact.
- Flammable. Smoking should be avoided during application. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight. Keep far from heat, sparks and flames.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- 1 lt plastic bottles.

## 8271 Seracare

### Grout Paint



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	White, Grey, Cappadocia Beige paint
Density	1,28 g/cm <sup>3</sup>
Shelf Life	24 months when stored in the original sealed packing in a dry place.
<b>Application Data</b>	
Application Temperature	(+5°C) - (+35°C)
Waiting time before cleaning the tiling with water	24 hour
Ready for foot traffic	~2 hour



#### Description

Acrylic emulsion based, silicone enhanced easy clean, ready-to-use paint for internal areas which is quickly and easily applied to rejuvenate, refresh and modify the colour of cementitious grout between tiles.

#### Fields of Application

- Can be used to renew the dirty and worn grout colours between tiles, porcelains, ceramics, granite, etc. in areas such as bathrooms, toilets, kitchens.
- Seracare Grout Paint is used to eliminate irregularities in the colour of grout and stains caused during use.

#### Properties

- Suitable for frequent washing, cleans up easily and stain resistant.
- Superior hiding power.
- High water vapour permeability.
- Easy to apply

#### Application

- The application area should be a clean, dry and homogeneous surface free of oil grease, dust and loose particles.
- Product must be applied on cement based grouts which have already cured at least for 48 hours.
- Shake the package well before use. Unscrew the cap and apply the Seracare Grout Paint by pressing the sponge applicator lightly on the surface of the joints.
- Wait for a few minutes until the paint applied on the joints is dry. Remove any traces of the paint from the edges of the tiles using a damp sponge

#### Post-Application Protection & Suggestions

- Surface and air temperature should be between (+5°C) – (+30°C).
- Do not use in exterior areas or on surfaces subject to continuous immersion (swimming pools etc.).
- Do not use on epoxy grouts or on expansion joints sealed with silicone or polyurethane based products.

- Protective gloves should be used during application.
- For further information refer to the safety data sheet.

#### Storage

- Should be kept dry and cool at between (+5°C) and (+35°C) in damp free conditions. Avoid direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- When not in use, the package should be closed.
- Shelf life is maximum 24 months under above mentioned storage conditions.

#### Packaging

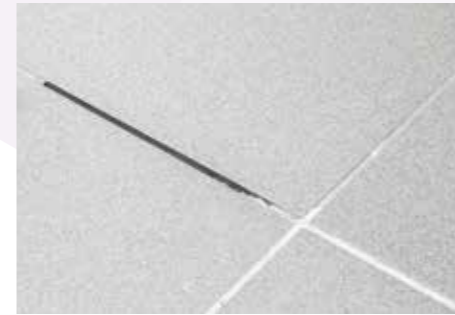
- 160 gr plastic tube
- 12 pieces / box

## 8272 Seracare

### Grout Fix



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	White paste
Shelf Life	24 months when stored in the original sealed packing in a dry place.
<b>Application Data</b>	
Application Temperature	(+5°C) - (+35°C)
Setting Time in Joint	10-15 minutes
Ready for foot traffic	~4 hour



#### Description

Acrylic resin based, silicone enhanced, flexible, non-cracking and collapsing joint grout repair paste suitable for 1-6 mm joint gaps that can be used in interiors.

#### Fields of Application

- Filling and repairing of cracked or blackened joints grouts of tiles porcelains, ceramics, glass mosaics of all sizes on the walls and floors of bathrooms, balconies and kitchens.

#### Properties

- Highly flexible
- Ready to use
- Does not crack
- Easy to apply
- Resistant to water

#### Application

- The joint gaps must be dry, clean, and solid.
- The joint gaps should be free of adhesion preventive foreign substances such as dust, dirt, cement residues, etc.
- The beak must be in full contact with the surface and the application should be started by gently pressing on the center.

- After the application, joints should be cleaned with a special spatula so that no residue is left.

#### Post-Application Protection & Suggestions

- Surface and air temperature should be between (+5°C) – (+30°C).
- Joint depth should be maximum 4 mm, If joint depth is more than 4mm collapse may occur.
- Depending on the humidity and ambient temperature, Seracare Grout Fix gains resistance to water 24-36 hours after the application.
- Tools should be cleaned with water after the application.
- Avoid contact with skin, eyes and mouth.
- Consult a doctor if accidentally swallowed.
- It should be stored out of the reach of children.
- For further information refer to the safety data sheet.

#### Storage

- Should be kept dry and cool at between (+5°C) and (+35°C) in damp free conditions. Avoid direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- When not in use, the package should be closed.

- Shelf life is maximum 24 months under above mentioned storage conditions.

#### Packaging

- 350 gr Plastic Tube
- 12 Pieces/Box



# Flexibility is in its Chemistry!

*Conformity, endurance, ease!*

## Sealants & Grabs

- 188 KALEMASTİK
- 189 KALESİLİKON
- 190 KALESİLİKON PLUS
- 191 KALESİLİKON NS
- 192 KALEPOLYMAS
- 193 KALEPOLYMAS MS
- 194 TECHNOBOND PU
- 195 TECHNOBOND MS
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# 8001 Kalemastik

## Acrylic Sealant



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	White paste
Density	1.64 ± 0.03 gr/cm <sup>3</sup>
Shelf Life	18 months in original sealed packaging.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+30°C)
Curing Time	3-5 mm/1 day
Skin Formation Time	10 - 15 minutes at room temperature
<b>Performance Data</b>	
Hardness Shore A (DIN 53505)	35 - 40
Service Temperature Range (after final cure)	(-10°C) - (+80°C)



### Description

Paintable elastic acrylic sealant.

### Fields of Application

- Fixing and sealing of joints and cracks in construction elements.
- Sealing aluminum, wood and PVC frames.

### Properties

- Good adhesion to most of the surfaces used in building.
- Adheres to absorbent and damp surfaces.
- Waterproof.
- Elastic.
- Paintable after curing.

### Preparation of Substrates

- All substrates must be dry, solid and sound, free of dust and crumbling parts, oils, grease, wax, old paint and rust.
- In order not to dirty the stone tiles and slabs, it is recommended to use masking tape on the sides of the joints before applying KaleMastik.

### Application

- Cut the tip of the cartridge at 45° to produce a hole corresponding to the size of the joint and screw on the nozzle.
- Insert the cartridge into the gun and extrude KaleMastik.
- Smooth the surface of KaleMastik with water before skin formation.
- The thickness of KaleMastik applied should be twice the width of the joint. Make the necessary corrections within 15 minutes.

### Post-Application Protection & Suggestions

- Remove the masking tape and clean the uncured KaleMastik from tools and contaminated surfaces with water. Cured KaleMastik can be cleaned with mechanical action together with water.
- Protect the surface from washouts at least during the first 24 hours after application.
- Do not use KaleMastik in sealing cracks larger than 8mm, use KaleFoam.
- Do not use KaleMastik for joints subject to foot traffic or joints with a movement greater than 10%.
- Do not use KaleMastik on non-absorbent surfaces, and on surfaces immersed in water.

### Storage

- Store in a cool and dry medium. Protect from frost.

### Packaging

- 310 ml. cartridge
- 280 ml. cartridge

# 8011-8015 Kalesilikon

## Silicone Sealant



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	White, Transparent Paste
Density	0.98 ± 0.03gr/cm <sup>3</sup>
Shelf Life	18 months in original sealed packaging.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+30°C)
Curing Time	2 mm/1 day
Skin Formation Time	10 - 15 minutes
<b>Performance Data</b>	
Hardness Shore A (DIN 53505)	15 ± 2
Modules at 100% Elongation (EN ISO 8339)	> 0.40 N/mm <sup>2</sup>
Tensile Strength at Breaking Point (ISO 8339)	> 2 N/mm <sup>2</sup>
Elongation at Breaking Point (ISO 8339)	> 500%
Resistance to Flow (EN 15651)	≤ 3 mm
Service Temperature Range (after final cure)	(-40°C) - (+100°C)



### Description

Moisture curing general purpose silicone sealant.

### Fields of Application

- Fixing, sealing and filling of joints of sanitary ware like baths, sinks, showers, kitchen, furniture.
- Fixing and sealing of construction elements made of glass, metal and PVC.

### Properties

- Perfect adhesion to most of surfaces used in building (glass, ceramic, marble, aluminum, concrete, stainless steel, PVC) without using primer.
- Elastic even at low temperatures as -30 °C.
- Resistant to many years of exposure to severe weather conditions, industrial environments and thermal gradients.
- Resistant to UV rays.
- White transparent and 4 different colours.

### Preparation of Substrates

- All substrates must be dry, solid and sound, free of dust and crumbling parts, oils, grease, wax, old paint and rust.
- In order not to dirty the stone tiles and slabs, it is recommended to use masking tape on the sides of the joints before applying KaleSilikon.

### Application

- Cut the tip of the cartridge at 45° to produce a hole corresponding to the size of the joint and screw on the nozzle.
- Insert the cartridge into the gun and extrude KaleSilikon.
- The material should be applied equally and continually while the tip of the cartridge remains within the joint.

- Smooth the surface of the sealant and check for the adhesion on the substrate right after the application. Possible air bubbles in the material should be let off during this process.

- Smooth the surface of KaleSilikon with soapy water before skin information.
- The thickness of KaleSilikon applied should be lower than or equal to the width of the joint.

### Post-Application Protection & Suggestions

- Remove the masking tape and clean the uncured KaleSilikon from tools and contaminated surfaces with common solvents like alcohol, ethyl acetate, toluene etc.
- Cured silicone can only be removed mechanically.
- Protect the surface from washouts at least during the first 24 hours after application.
- Surface and ambient temperature must be between +5°C and +40°C.
- Avoid application in extremely hot and/or damp weather.
- Should not be used on frozen or melting substrates, or substrates with the risk of frost within 24 hours.
- KaleSilikon cannot be used for aquariums.
- Not over paintable.
- Irritant for eyes, respiratory system and skin. For further information refer to the safety data sheet.

### Storage

- Store at a temperature between - 5 °C to + 50 °C in the original sealed cartridge.

### Packaging

- 280 ml. cartridge
- 310 ml. cartridge
- 280 gr cartridge



# 8017 Kalesilikon Plus

## Shower Cabin Silicone



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Transparent and White colours silicone sealant
Density	1.02 ± 0.03 gr/cm <sup>3</sup>
Shelf Life	12 months in original sealed packaging.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+40°C)
Curing Time	Min. 3 mm/day
Skin Formation Time	7-13 min.
<b>Performance Data</b>	
Hardness Shore A (DIN 53505)	24-30 (after 28 days)
Change in Volume (%) (ISO 10563)	≤ 10
Tensile Strength (ISO 8339)	≥ 0.4 N/mm <sup>2</sup>
Elongation at Break (ASTM D412)	≥ 250%
Elastic Recovery (ISO 7389)	Approx. 100%
Temperature Resistance	(-50°C) - (+200°C)



### Description

Solvent free bathroom and kitchen sealant, specially formulated for use in production and installation of shower cabins and shows excellent adhesion, durability and mold resistant properties.

### Fields of Application

- Filling joints between tiles, bathtub and shower cabin during installation.
- Sealing joints of tiles for waterproofing.
- Filling and sealing the gaps between the shower cabin, tub and tiles during the shower cabin installation.

### Properties

- 100% silicone, does not contain any solvent.
- Cures very fast.
- Mold-proof.
- No shrinkage, does not lose volume.
- Stays bright and clean.
- Resistant to temperature extremes and aging.
- Does not crack or discolor.
- Withstands detergents, cleaning agents and chemicals.
- Acetoxy curing system.

### Preparation of Substrates

- Ensure that surfaces to be sealed are clean, dry and grease free.
- In order not to dirty the stone tiles and slabs, it is recommended to use masking tape on the sides of the joints before applying the sealant.

### Application

- Cut the tip of the cartridge at 45° to produce a hole corresponding to the size of the joint and screw on the nozzle.
- Place the cartridge into the gun and extrude silicone.
- After the application, the sealant must be tooled with light pressure within 5 minutes to spread the material against the joint surfaces and to obtain a professional finish.
- Remove the masking tape and clean the uncured silicone from tools and contaminated surfaces. Cured sealant can be removed barely mechanically.
- Protect the surface from washouts at least during the first 24 hours after application.

### Post-Application Protection & Suggestions

- It's not paintable.
- It should not be used for aquariums.
- KaleSilikon Plus releases acetic acid during curing. Therefore, it must not be used on mirrors and sensitive metals such as copper, brass and lead.
- Prolonged exposure to direct sunlight must be avoided because of discoloring.
- It should not be used on porous surfaces such as stone, concrete, marble or granite.
- If inhaled for a long time in large volumes, vapor of acetic acid may cause irritation of the respiratory system. Therefore, the application must take place in a well-ventilated room. Prolonged contact with uncured sealant must be avoided.
- For further information refer to the safety data sheet.

### Storage

- Should be kept dry and cool at between +5°C and +35°C in damp free conditions avoiding direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Maximum 3 boxes should be stacked on top of each other.
- Shelf life is maximum 18 months under above mentioned storage conditions.

### Packaging

- 310 ml cartridge/24 cartridges in box

Joint Width	6 mm	9 mm	12 mm
Joint Depth	6 mm	8 mm	10 mm
Efficiency / 310 ml	8 meters	6 meters	4 meters

# 8018 Kalesilikon NS

## Neutral Facade Silicone



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Transparent and White colours silicone sealant
Density	1,33 ± 0,03 gr/cm <sup>3</sup>
Shelf Life	12 months in original sealed packaging.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+40°C)
Curing Time	Min. 2,5 mm/day
Skin Formation Time	13 min.
<b>Performance Data</b>	
Hardness Shore A (DIN 53505)	25 ± 5 (after 28 days)
Elongation at Break (ASTM D412)	≥ 200%
Loss at Volume (ISO 10563)	< 10%
Resistant to Flow (ISO 7390)	≤ 3 mm
Temperature Resistance	(-50°C) - (+150°C)



### Description

Neutral cure, premium performance silicone sealant formulated for weather sealing and glazing application.

### Fields of Application

- Premium weather sealing and joint sealing for walls, windows and doors.
- Sealing of connection and expansion joints.
- Sealing applications of marble, stone and other porous substrates.
- Sealing and mounting the window and door frames.

### Properties

- Solvent-free, 100% silicone.
- Resistant to UV.
- Long lasting.
- Easy to apply.
- Exceptional resistance against temperature extremes.
- Not affected by exposure to sunlight, rain, snow and maintains durability over many years.

### Preparation of Substrates

- Ensure that surfaces to be sealed are clean, dry and grease free.
- In order to prevent dirtying the stone tiles and slabs, it is recommended to use masking tape on the sides of the joints before applying the silicone.
- In order to reduce the deformations of the joints, the depth of the joint gap must be much less than its width. Minimum dimension is 5x5 mm, for wider joints the depth should be preferably half of the width. Depth can be adjusted by use of a backup material.
- Joint width and depth ratio should be about 2:1.

### Application

- Cut the tip of the cartridge at 45° to produce a hole corresponding to the size of the joint and screw on the nozzle.
- Place the cartridge into the gun and extrude silicone.
- After the application, the sealant must be tooled with light pressure within 5 minutes to spread the material against the joint surfaces and to obtain a professional finish.
- Remove the masking tape and clean the uncured silicone from tools and contaminated surfaces. Cured sealant can only be removed mechanically.
- Protect the surface from washouts at least during the first 24 hours after application.

### Post-Application Protection & Suggestions

- It must not be used in totally confined spaces where sealant cannot cure due to lack of atmospheric moisture.
- Not over paintable.
- Do not use it in conjunction with bitumen asphalt, neoprene and certain organic elastomers.
- It is not suitable for food contact applications.
- Do not use it to produce swimming pool joints.
- For further information refer to the safety data sheet.

### Storage

- Should be kept dry and cool at between +5°C and +25°C in damp free conditions avoiding direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Maximum 3 boxes should be stacked on top of each other.
- Shelf life is maximum 15 months under above mentioned storage conditions.

### Packaging

- 310 ml cartridge / 24 cartridges in box

Joint Width	10 mm	15 mm	20 mm
Joint Depth	6 mm	8 mm	10 mm
Efficiency / 310 ml	5 meters	2,5 meters	1,5 meters

## 8021 Kalepolymas

### Polyurethane Sealant



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Grey or White paste	
Shelf Life	12 months in original sealed cartridges and sausage.	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+40°C)	
Curing Time	2.5 mm / 24 hours	
Tack Free Time	60 - 90 minutes	
<b>Performance Data</b>		
Hardness Shore A (DIN 53505)	30 ± 5	
Modules at %100 Elongation (EN ISO 8339)	≤ 0.40 N/mm <sup>2</sup>	
Elongation at Breaking Point (ISO 8339)	> 600%	
Elastic Recovery (ISO 7389)	≥ 70%	
Volume Loss (EN ISO 10563)	≤ 10%	
Resistance to Flow (EN ISO 7390)	≤ 3 mm	
Service Temperature Range (after final cure)	(-30°C) - (+80°C)	

#### Description

One-component flexible polyurethane sealant for expansion joints.

#### Fields of Application

- Sealing of expansion joints in building materials.
- Vertical and horizontal sealing of prefabricated construction materials.
- Sealing floor joints in ceramic and porcelain floor tiles in areas subject to heavy traffic.
- Flexible sealing around pipelines, outlets, and drains made of metal, wood, PVC.
- Sealing of expansion joints of internal and external places subject to movement up to 25% in supermarkets, car parks, shopping centers, warehouses.

#### Properties

- Good adhesion to almost all materials that are commonly used in buildings.
- High mechanical strength.
- Abrasion resistant.
- Easy to apply on both horizontal and vertical surfaces.
- Elastic.
- Remains unchanged even after many years of industrial pollution, sudden temperature changes and immersion in water.

#### Preparation of Substrates

- All substrates must be dry, solid and sound, free of dust and crumbling parts, oils, grease, wax, old paint and rust.
- In order not to dirty the stone tiles and slabs, it is recommended to use masking tape on the sides of the joints before applying KalePolymas.

#### Application

- Cut the tip of the cartridge at 45° to produce a hole corresponding to the size of the joint and screw on the nozzle.
- Insert the cartridge or sausage into the gun and extrude KalePolymas.
- Smooth the surface of KalePolymas with soapy water before skin formation.
- Use cord fillers appropriate to the width of the joint. Width of the joint should be 5 - 40 mm and the depth 5 - 20 mm.
- The thickness of KalePolymas applied should be lower than or equal to the width of the joint.

#### Post-Application Protection & Suggestions

- Remove the masking tape and clean the uncured KalePolymas from tools and contaminated surfaces with white spirit. Cured KalePolymas can only be removed mechanically.
- Protect the surface from washouts at least during the first 24 hours after application.
- UV lights can change the color of the product; however mechanical properties are not affected.
- Surface and ambient temperature must be between +5°C and +35°C.
- Avoid application in extremely hot and/or damp weather.
- Should not be used on frozen or melting substrates, or substrates with the risk of frost within 24 hours.
- Use appropriate safety equipments (mask, gloves, glasses), protect your eyes/face and avoid direct contact with eyes and skin. For further information refer to the safety data sheet.

#### Storage

- Store at temperatures between (+5°C) - (+30°C) in original sealed packaging.

#### Packaging

- 310 ml. Cartridge / 12 cartridges in box
- 600 ml. Sausage / 20 sausages in box

		Theoric length of the joint to be filled by 310 ml. cartridge / 600 ml. sausage packing			
Joint Width (mm)		5	10	20	30
	5	-	6.2/12	-	-
Joint Depth (mm)	10	6.2/12	3.1/6	1.6/3	-
	15	-	2.1/4	1/2	0.7/1.3
	20	-	-	0.8/1.5	0.5/1

## 8022 Kalepolymas MS

### MS Polymer Based Joint Selant



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	White, Black and Grey colour sealant	
Density	1.38 ± 0.03 gr/ml	
Shelf Life	12 months in original sealed packaging.	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+40°C)	
Curing Time	Min. 2,5 mm/day	
Tack Free	Approx. 60 min	
<b>Performance Data</b>		
Hardness Shore A (DIN 53505)	25 ± 5	
Elongation at Break % (ISO 37)	≥ 250%	
Volume Loss	≤ %10	
Tensile Strength (ISO 37)	≥ 1 N/mm <sup>2</sup>	
Sagging (ISO 7390)	3 mm	
Temperature Resistance	(-40°C) - (+90°C)	

#### Description

MS polymer based, multipurpose, single component, elastic joint sealant suitable for indoor and outdoor applications which can withstand extreme joint movements.

#### Fields of Application

- Expansion and connection joints in the construction industry
- Suitable for indoor and outdoor, horizontal and vertical joints
- Parapet corner joints of roofs and terraces
- Sealing of joints in prefabricated buildings
- Movement joints in high rise constructions
- Sealing between window and door frames

#### Properties

- Highly thixotropic, suitable for vertical joints
- Low modulus - can withstand extreme joint movements
- Does not contain solvent, silicone or isocyanate
- High bonding strength on almost all surfaces
- Bonds perfectly on many different substrates even are not primed before
- No bubble formation, even in wet and humid conditions
- Very good UV resistance
- Does not lose volume.

#### Preparation of Substrates

- Ensure that surfaces to be sealed are clean, dry and grease free.
- In order not to dirty the stone tiles and slabs, it is recommended to use masking tape on the sides of the joints before applying the sealant.
- In order to reduce the deformations of the joints, their depth must be much less than their width, minimum dimensions should be 5x5 mm. For wider joints the depth should be preferably half of the width and it is adjusted by the use of a backup material.
- Joint width/depth ratio should be 2:1.

#### Application

- Before the application, the tip of the cartridges is cut and a plastic cap is fixed.
  - The tip of the cap is cut according to the width of the surface and fixed to the cartridge gun.
  - The joints should be filled at one time and without gaps during the application.
  - After the application, the sealant must be tooled with light pressure within 5 minutes to spread the material against the joint surfaces and to obtain a professional finish.
  - Remove the masking tape and clean the uncured silicone from tools and contaminated surfaces.
- Cured sealant can only be removed mechanically.

#### Post-Application Protection & Suggestions

- The opened products should be consumed immediately.
- It bonds without primer on almost all materials used in the construction industry. If not sure, it is recommended to do a preliminary compatibility test.
- For further information refer to the safety data sheet.

#### Storage

- Should be kept dry and cool at between +10°C and +25°C in damp free conditions avoiding direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Maximum 3 boxes should be stacked on top of each other.
- Shelf life is maximum 12 months under above mentioned storage conditions.

#### Packaging

- 290 ml cartridge/12 cartridges in box
- 600 ml sausage/20 sausages in box

Joint Width	10 mm	15 mm	20 mm	25 mm	30 mm
Joint Depth	5 mm	8 mm	10 mm	12 mm	15 mm
Efficiency / 290 ml	6 meters	2,5 meters	1,5 meters	1 meter	0,7 meters

# 1401 Technobond PU

## Polyurethane Adhesive and Sealant



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	Grey colored polyurethane adhesive and sealant	
Shelf Life	12 months when in original sealed cartridges and sausages.	
<b>Application Data</b>		
Application Temperature Range	From (+5°C) - (+40°C)	
Curing Time	3 mm/24 hours	
Skin Formation Time	60 - 90 minutes	
Tack Formation Time	60 minutes	
<b>Performance Data</b>		
Hardness Shore A (DIN 53505)	40 - 45	
Modules at %100 Elongation (EN ISO 8339)	> 0.40 N/mm <sup>2</sup>	
Tensile Strength (ISO 8339)	> 0.60 N/mm <sup>2</sup>	
Elongation at Breaking Point (ISO 8339)	> 500%	
Elastic Recovery (ISO 7389)	≥ 70%	
Movement Capability (ISO 11600)	25%	
Resistance to Flow (EN ISO 7390)	≤ 3mm	
Service Temperature Range (after final cure)	(-30°C) - (+80°C)	

### Description

One component, multi-purpose, elastic polyurethane adhesive and sealant.

### Fields of Application

- Horizontal and vertical bonding of various construction materials such as ceramic, wood, gypsum board, steel, aluminum, fibre cement on substrates such as concrete, ceramic, aluminum, wood.
- Bonding of prefabric construction materials.
- Bonding of facade panels like ceramic, granite ceramic, KALESINTERFLEX® to metal construction.
- Sealing of expansion joints of internal and external places subject to movement up to 20% in supermarkets, car parks, shopping centers and warehouses.

### Properties

- High early bonding strength (no sagging after application).
- High adhesion to various substrates.
- High elasticity.
- Long lasting and resistant to severe weather conditions.
- Non-corrosive.
- Resistant to chemicals like water, cleaning agents, small amounts of oils and hydrocarbons, diluted acids and bases.

### Preparation of Substrates

- All substrates must be clean, dry, solid and sound, free of dust and oil etc. which may prevent proper adhesion.
- Cementitious substrates must be cured.

### Application

- The product must be placed in the cartridge or sausage gun.
- Heavy materials exceeding 8 kg/m<sup>2</sup> must be supported for at least 15 hours.
- The cartridge tip should be cut at an angle fitting the width of the surface to be applied.
- The product should be applied in dots or strips.
- Smooth the surface of the sealant and check for the adhesion on the substrate right after the application.
- Possible air bubbles in the material should be let off during this process.

### Post-Application Protection & Suggestions

- If the application is interrupted, keep the tip of the packing closed.
- Clean equipment with a solvent before drying.
- Cured products can be removed mechanically.
- Surface and ambient temperature between +5°C and +40°C.
- Avoid application in extremely hot and/or damp weather.
- Should not be used on frozen or melting substrates, or substrates with the risk of frost within 24 hours.
- Contains polyisocyanates. Harmful.
- Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with soap and plenty of water and seek medical advice.
- Wear protective clothes, gloves and goggles.
- Do not inhale the vapor. Ventilate the area during the application. For further information refer to the safety data sheet.

### Storage

- Store at temperatures between (+5°C) - (+30°C) in a well-ventilated room.

### Packaging

- 310 ml Cartridge / 12 cartridges in box
- 600 ml Sausage / 20 sausages in box

# 1404 Technobond MS

## MS Polymer Adhesive



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	White, Black or Grey coloured adhesive	
Density	1.49 ± 0.03 gr/ml	
Shelf Life	9 months when in original sealed cartridges and sausages.	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+40°C)	
Tack Free	15-20 min.	
Curing Rate	Approx. 3.5 mm/24 hr	
<b>Performance Data</b>		
Hardness Shore A (DIN 53505)	55 ± 5	
Elongation at Break % (ISO 37)	≥ 300%	
Volume Loss	< 10%	
Tensile Strength (ASTMD412)	3.0 - 3.5 N/mm <sup>2</sup>	
Sagging (ISO 7390)	3 mm	
Temperature Resistance	(-40°C) - (+90°C)	

### Description

MS polymer-based, one component, high quality and professional adhesive with high adhesion strength and initial tack.

### Fields of Application

- It is suitable for elastic bonding of panels, profiles and other pieces on the most common substrates such as stone, concrete, ceramic, copper, lead, zinc, aluminium, metals, R.V.S., wood, HPL and cement fibre panels etc.
- For fixing of;
- Wall cladding elements and ceiling panels,
- Sound isolation panels (mineral wool, wood-wool cement & plastic foams),
- Thermal insulation boards,
- Wooden and plastic laths, ornaments and frames,
- Doorsteps, window sills, skirting boards and cover plates

### Properties

- High initial tack.
- Suitable for bonding heavy building materials without use of clamps and/or fixing tape.
- Waterproof, cures with moisture.
- One component.
- Adheres to all types of surfaces.
- Over-paintable.
- Does not lose volume.
- Resistant to temperature extremes and aging.
- Does not need primer (preliminary test recommended).
- Excellent elasticity and very good adhesion strength.
- Does not contain solvent, silicone or isocyanate.

### Preparation of Substrates

- Ensure that surfaces to be fixed are clean, dry and grease free.

### Application

- Before application, the tip of the cartridges is cut and a plastic cap is fixed.
- The tip of the cap is cut according to the width of the surface and fixed to the cartridge gun.
- Apply the adhesive in strips or dots on the surface or on the material to be bonded. The strips must be applied in vertical rows.
- Bring together the parts to be joined as quickly as possible, at least within 5 minutes (this depends on the temperature and relative humidity level). At this stage, parts can still be adjusted, but finally it should be pushed down well over the other part or tapped with a rubber hammer.
- Any adhesive that may protrude along the edges can be removed using a spatula.
- Adhesive residue that has not yet dried, can be removed using white spirit or alcohol.
- Dried adhesive must be removed mechanically.

### Post-Application Protection & Suggestions

- Opened products should be consumed immediately.
- It bonds without primer on almost all materials existing in the building industry. If not sure, it is recommended to hold a preliminary compatibility test.
- For further information refer to the safety data sheet.

### Storage

- Should be kept dry and cool at between +10°C and +25°C in damp free conditions avoiding direct sunlight.
- Should be protected from water, frost and adverse weather conditions.
- Maximum 3 boxes should be stacked on top of each other.
- Shelf life is maximum 9 months under above mentioned storage conditions.

### Packaging

- 290 ml cartridge/12 cartridges in box
- 600 ml sausage/20 sausages in box

Joint Width	10 mm	15 mm	20 mm
Joint Depth	6 mm	8 mm	10 mm
Efficiency / 290 ml	5 meters	2.5 meters	1.5 meters

# 8101 Kalefoam

## Polyurethane Foam



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Yellow foam
Composition	Polyurethane foam
Shelf Life	12 months in original sealed packaging.
<b>Application Data</b>	
Application Temperature Range	(+5 °C) - (+25 °C)
Free Rise Density	~ 25 kg/m <sup>3</sup>
Ready to Cutting	~ 10 minutes (20 mm thickness)
<b>Performance Data</b>	
Thermal Conductivity (DIN 53455)	0.04 W/mK
Tensile Strength	~18 N/cm <sup>2</sup>
Shear Strength	~8 N/cm <sup>2</sup>
Compressive Strength	~20 N/cm <sup>2</sup>
Flexural Strength	~5 N/cm <sup>2</sup>
Water Absorption	0.3 % (by volume)
Dimensional Stability	≤ 10 %
Consumption	Can be controlled with pressure and angle of valve.
Yield	~45 lt.
Service Temperature Range (after final cure)	(-40°C) - (+100°C)

### Description

Single component, moisture curing multipurpose polyurethane foam that cures to a semi-rigid structure within 2 - 4 hours.

### Fields of Application

- Fixing door and window frames made of wood, metal and other materials.
- Fixing and isolating electrical installations and water pipes.
- Filling and insulating large cracks, jointing and holes.

### Properties

- Bonds all types of building materials except polyethylene, polypropylene, silicone and teflon.
- Insulates against heat sound and moisture.
- Easy to cut, sand, paint and plaster when cured.
- High foam stability, does not shrink, sag, crumble.
- Resistant to damp and atmospheric conditions.
- CFC free, ozone friendly.
- Not toxic when cured.

### Preparation of Substrates

- All substrates must be dry, solid and sound, free of dust and crumbling parts, oils, grease, wax, old paint and rust.
- In order not to dirty the place where KaleFoam is applied, it is recommended to use masking tape on the sides.
- Dampen the surface in order to let KaleFoam expand and cure ideally.

### Application

- Shake the tube strongly at least 20-30 times to get a good foam structure.
- Screw the trigger to the tip of the tube.
- Turn the tube upside down and squeeze the trigger making 45° angle to the place where KaleFoam is applied.
- Adjust the flow rate of KaleFoam by changing the pressure applied on the trigger.
- Adjust the quantity of the KaleFoam extruded considering that it expands 2.5 times.
- Dampen the first layer before applying the next, when it is required to apply several coats.

### Post-Application Protection & Suggestions

- Remove the masking tape and clean the uncured KaleFoam from tools and contaminated surfaces with acetone.
- Do not move supports if any until foam cures completely.
- Surface and ambient temperature between +5°C and +25°C.
- Avoid application in extremely hot and/or damp weather.
- Should not be used on frozen or melting substrates, or substrates with the risk of frost within 24 hours.
- Do not breathe vapour. Must be applied in well ventilated environments.
- Use protective clothing, gloves and goggles.
- Tube is filled under pressure so store below 50 °C and do not punch or expose to flame when it is emptied.
- Keep away from children.
- Avoid skin and eye contact. In case of any contact with eyes, wash immediately with water and consult a doctor. For further information refer to the safety data sheet.

### Storage

- Store in a cool and dry medium, standing vertically at 20°C.

### Packaging

- 750 ml. tubes





# Contribution is in its Chemistry!

*Flexibility, performance, endurance!*

## Additives

- 200 KALEKİM LATEX
- 201 KALEKİM LATEX SBR
- 202 BETOPLUS 101

## 5005 Kalekim Latex

### Liquid Waterproofing Mortar Additives



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	White liquid
Shelf Life	12 months in original sealed package
pH	8 - 10
Density	1.03 ± 0.03 gr/cm <sup>3</sup>
<b>Application Data</b>	
Application Temperature Range	(+5 °C) - (+25 °C)
Mixing Ratio (Latex/Water)	1:1 - 1:4 (depending on the application)
Consumption	Varies with application



#### Description

Water dispersion of a synthetic elastomer for improving workability and water impermeability when mixed with cementitious mortars like renders, screeds, repair mortars and adhesive slurries.

#### Fields of Application

• As an admixture to improve flexibility, adhesion, water impermeability characteristics of cementitious mixes for screeds, renders, repair mortars, adhesive slurries.

#### Properties

- Improves adhesion to all surfaces
- Increases resistance to abrasion.
- Improves water impermeability.
- Improves flexibility.
- Increases resistance to freeze–thaw cycles.
- Increases chemical resistance to diluted acids and alkalis, salt solutions and oils.

#### Preparation of Substrates

- Surfaces must be cured.
- Surface must be clean, dry and free from oils, grease, residual paint and other loose material.
- The surface should be primed with Kalekim Astar (Primer) depending on the absorbency of the substrate before application.

#### Application

- Kalekim Latex should not be shaken much to prevent air entraining.
- Dilute Kalekim Latex with water in a suitable container with the ratio recommended below for specific applications.
- Pour the solution into the concrete mixer and add cement and the aggregates preferably mixed before in order to avoid lumps.
- Mix thoroughly till a homogeneous mixture is obtained.

#### Usage in renders:

- Mix cement: sand (at appropriate size) at ratio 1:4 - 1:5. Prepare solution with Kalekim Latex: water at 1:4. Add solution into powder mixture at appropriate amount.

#### Usage in repairing mortars:

- Mix cement: sand at ratio 1:3 - 1:4. Prepare solution with Kalekim Latex: water at 1:3. Add solution into powder mixture at appropriate amount.

#### Usage in screeds:

- Mix cement: sand at ratio 1:3. Prepare a solution with Kalekim Latex: water at 1:2. Add solution into powder mixture at appropriate amount until it reaches a thick consistency.
- Prepared mixture should be applied in 2 mm thickness with a brush on the floor. Screed should be applied on this layer when it is still wet.
- Screed mortar should be prepared by adding an appropriate amount of liquid mixture of Kalekim Latex : water mixed at 1:4 ratio into powder mixture of cement : sand mixed at 1:3- 1:4 ratio.

#### Post-Application Protection & Suggestions

- Dispose mortars with expired pot life.
- Clean tools and hands with water, surfaces with a damp cloth before setting begins.
- After application, in very warm or windy weather conditions the mortars made with Kalekim Latex as an admix must be cured carefully to avoid fast water evaporation, which could cause surface cracks due to plastic shrinkage.
- Do not use Kalekim Latex as a bonding agent, always add cement and sand.
- For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- In drums of 5 lt or 30 lt or 200 lt barrel

## 5004 Kalekim Latex SBR

### Liquid Waterproofing Mortar Additive



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	White liquid
Shelf Life	12 months in original sealed package
pH	8 - 10
Density	1.00 ± 0.02 gr/cm <sup>3</sup>
<b>Application Data</b>	
Application Temperature Range	(+5 °C) - (+25 °C)
Mixing Ratio (Latex SBR/Water)	No dilution or 1:1 (depending on the usage)
Consumption	Varies with usage area and purpose

#### Description

Water dispersion of a synthetic elastomer for improving workability and water impermeability when mixed with cementitious mortars like renders, screeds, repair mortars and adhesive slurries.

#### Fields of Application

• As an admixture to improve flexibility, adhesion, water impermeability characteristics of cementitious mixes for screeds, renders, repair mortars, adhesive slurries.

#### Properties

- Improves adhesion to all surfaces
- Increases resistance to abrasion.
- Improves water impermeability.
- Improves flexibility.
- Increases resistance to freeze–thaw cycles.
- Increases chemical resistance to diluted acids and alkalis, salt solutions and oils.

#### Preparation of Substrates

- Surfaces must be cured.
- Surface must be clean, dry and free from oils, grease, residual paint and other loose material.
- The surface should be primed with Kalekim Astar (Primer) depending on the absorbency of the substrate before application.

#### Application

- Kalekim Latex SBR should not be shaken much to prevent air entraining.
- Dilute Kalekim Latex SBR with water in a suitable container with the ratio recommended below for specific applications.
- Pour the solution into the concrete mixer and add cement and the aggregates preferably mixed before in order to avoid lumps.
- Mix thoroughly till a homogeneous mixture is obtained.

#### Usage in renders:

- Mix cement: sand (at appropriate size) at ratio 1:4 - 1:5. Prepare solution with Kalekim Latex SBR: water at 1:1. Add solution into powder mixture at appropriate amount. Into powder mixture at appropriate amount.

#### Usage in repairing mortars:

- Mix cement: sand at ratio 1:4 - 1:5. Prepare solution with Kalekim Latex SBR: water at 1:1. Add solution into powder mixture at appropriate amount. Into powder mixture at appropriate amount.

#### Usage in screeds:

- Screed mortar should be prepared by adding an appropriate amount of liquid mixture of Kalekim Latex (without dilution) into powder mixture of cement : sand mixed at 1:3- 1:4 ratio.

#### Post-Application Protection & Suggestions

- Dispose mortars with expired pot life.
- Clean tools and hands with water, surfaces with a damp cloth before setting begins.
- After application, in very warm or windy weather conditions the mortars made with Kalekim Latex SBR as an admix must be cured carefully to avoid fast water evaporation, which could cause surface cracks due to plastic shrinkage.
- Do not use Kalekim Latex SBR as a bonding agent, always add cement and sand.
- For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- In drums of 4 lt

# 5101 Betoplus 101

## Waterproofing Admixture



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	White powder
Shelf Life	12 months when stored in original packaging at temperature
<b>Application Data</b>	
Application Temperature Range	(+5 °C) - (+25 °C)
Consumption	330 g powder for 1 paper bag (50 kg) cement, min. 300 kg/m <sup>3</sup> mortar

### Description

Ready to use waterproofing powder admixture for cement/sand mortars.

### Fields of Application

Used as an admixture for waterproofing of;

- Cementitious renders and mortars exposed to water and humidity.
- Renders for exterior applications.
- Flooring mortars under ceramic tiling.
- Concrete basins of potable water, foundations, retaining walls, basement walls.

### Properties

- Provides waterproofing by sealing concrete's capillary tracts
- Is not affected by lime.
- Increases the strength of the mortar.
- Does not have any effects on the curing and hardening properties of the mortar.

### Application

- Add one bag (330 g) of Betoplus 101 to the dry mix for each 1 paper bag (50 kg) of cement used in the mortar.
- Make sure that the dry mix is homogenous before adding the water for the mortar.

### Post-Application Protection & Suggestions

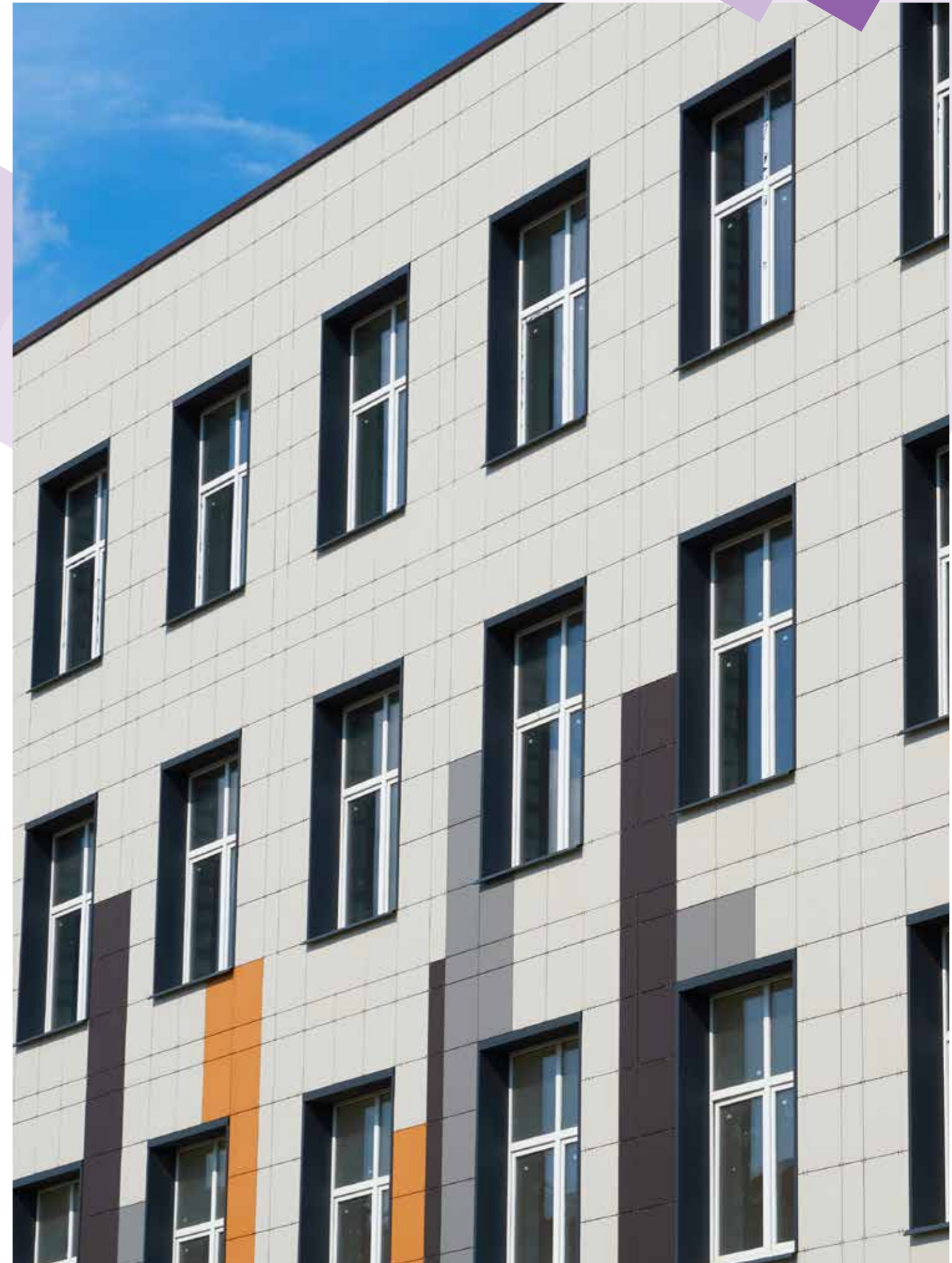
- Betoplus 101 must be added to the dry mortar mix and blended well twice before adding the required water. Waterproofing property can not be provided if it is added to the mortar after water because the mixing cannot be homogenous in such case.
- Betoplus 101 can be used with other cement based Kalekim mortars. Pre-test is required to check the compatibility of products with each other.
- For further information refer to the safety data sheet.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- 330 g polyethylene bags.





# Resilience is in its Chemistry!

*Endurance, protection, aesthetic!*

## Technical Building Solutions

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# Floor Applications

## Points to be Careful About in

### Application of Dry Shake Surface Hardener

In dry shake surface hardener applications, correct timing of scattering and appropriate trowelling techniques are the most important stages. Depending on the ambient and weather conditions, application should be started when concrete reaches to a minimum bearing capacity (foot print formation when walked over be between 0,5-1cm). Meanwhile, the surface should be damp, but no water should be available. According to the application method, manual or mechanical, powder scattering recommended in one or two steps. Then, integration with the concrete surface hardener should be provided with the finishing trowel. After application, to prevent shrinkage cracks and to improve the performance of the surface hardener, applying curing material (**Tecnica 22 CW**) is preferred.

### Application of Epoxy Coating

In epoxy coating applications, preparation of the surface is the most important stage. Before all else the specifications of the existing surface must be checked and then the surface must be rendered ready for application by employing an appropriate method.

The concrete surface on which epoxy finish will be applied, must at least have 25 N/mm<sup>2</sup> compressive strength as well as 1,5 N/mm<sup>2</sup> tensile strength.

The loose pieces on the surface of the concrete as well as any weak parts must be removed by employing mechanical methods and the surface must be roughened by applying abrasion on the layer of grouting.

The surface must be cleaned of any dirt, tar and oils. Burning could be used as one of the methods to accomplish this. The use of Oxy-acetylene systems operating under very high temperatures could be necessary for the cleaning of the oil that is deeply infused into the sub-layers of the surface.

Mechanical preliminary work is performed to remove any dirt on the upper layers of the surface by means of sanding, abrasion or shot cleaning. These processes must be performed by employing light rubbing machines on surfaces that are not durably solid and milling machines that contain strong abrasives on solid surfaces.

When abrasion is not possible by employing mechanical procedures or the desired results could not be achieved when such methods are used, the sub-structure could be subjected to acid cleaning. Although this method is less effective, if the application is handled with diligence desired results could be achieved. Following the cleaning, the acid residue must be neutralized and removed by washing with water.

All loose pieces and dust must be removed from the surface along with any remnants from the mechanical preliminary process by means of air blowing, burning and vacuuming procedures. Following these procedures, the damage to the surface must be thoroughly examined and if any, the sufficiency of dilatation joints as well as the elasticity of the joint sealants must be checked. Joints that have lost their elasticity in time and fashioning broken edges and corners must, if necessary, be cleaned out, renewed and filled with epoxy filling mortar.

If the existing surface cannot be rendered eligible for application, pouring of new concrete in a thickness of 8 to 10 cm on the surface, if possible, could be economically more feasible and prove to be a faster solution.

In the aftermath of the foregoing preliminary processes, based on the finish coat to be applied, the humidity of the surface must be checked. The humidity of the surface must be less than 4% to be able to apply Tecnica Epoxy Based Coating products. Especially where the concrete surfaces that are in contact with soil are concerned, the existence and durability of drainage systems must primarily be checked prior to an application.

The temperature of the surface and the weather must remain within a range of (+10)°C and (+30)°C within the week following the application and care must be taken to ensure that the ambient temperature is at least 3°C above the dew point.

The temperature of the epoxy surface coating system products to be applied must be ensured to be between (+15)°C and (+25)°C prior to the application. The products must be obtained at least 24 hours prior to their application on surfaces that would ensure the temperature requirements.

The thickness of the epoxy flooring system should be determined based on traffic and load the floor will be exposed to. While a thickness of 3 mm may be sufficient in storage areas or car parks, a thickness of 3-4 mm will not be sufficient in some industries which experience high mechanical wear and load. In addition, the application thickness and environmental conditions affect its life.

### Application of Primer, Surface and Surface Crack Repairs:

Epoxy based primers (**Tecnica 132**, **Tecnica 142**) act as a bridge between the upper layer and the surface. The areas bearing cracks, indentations and segregations must be repaired by using epoxy primer and epoxy mortar. In repairs on surfaces that are deeper than 4-5 mm and covering a wide area, cement based repair mortar eligible for epoxy coating can be used. If the cracks are deep and there is the risk of water seeping from under the surface, the permeation of water must be prevented before all else.

The primer must be applied for the following purposes;

- To prevent raising of dust
- To cover up the pores
- To reduce consumption on the main layer
- To reduce the cost of the entire system
- To improve the adherence on successive layers
- To strengthen the surface where it is weak.

### Application of Intermediate Layers

Prior to the application of the finishing layer the smoothness of the surface must be ensured. To serve this purpose an interim layer must be applied to cover up the ripples and repair the indentations, cracks, holes, etc. Otherwise, the imperfections of the surface will prevent the formation of a smooth surface in the application of the finishing layer.

### Application of the Finishing Layer

Depending on the specifications desired finish **Tecnica 242 SL**, **Tecnica 332** or **Tecnica 342 OP** for textured surfaces can be applied.

\*: Dew point is the temperature at which the water turns into liquid form from vapor.

For further information about the products; please contact with the Technical Office (pazarlama@kalekim.com.tr)



Logistics Storage Areas



High Chemical and Mechanical Resistance Required Production Areas



Food and Medicine Production Areas



Parking Lots



Commercial Buildings, Offices



General Production Areas

# Tecnica 22 CW

## Acrylic Emulsion Based Curing Material



Technical Properties	(at 23°C and 50% RH)
Appearance / Colours	White liquid
Shelf Life	12 months
Consumption	0.15-0.25 kg/m <sup>2</sup>
Application Temperature	5 - 35 °C
Density	~1 kg/l



### Description

Acrylic emulsion based, curing material to be applied after concrete, screed and cementitious surface hardener applications which prevents the water evaporation and reduces the risk of shrinkage and crack formation by forming film on the surface.

### Fields of Application

- Suitable for interior and exterior applications.
- Applicable over concrete substrates, screeds and cementitious surface hardener applied surfaces.
- Suitable for low relative humidity and high air current conditions.
- Convenient for curing process of vertical and horizontal building elements.

### Properties

- Tecnica 22 CW provides curing of the cement based surface it is applied on without affecting the normal setting reactions and helps reaching its maximum performance.
- Helps to keep the water content of the applied surface.
- Reduces the risk of shrinkage and crack formation.
- Efficient and durable.
- Provides a harder and anti-dusting surface.
- Easy application.
- Solvent free.

### Application

- Tecnica 22 CW should be shaken well before using.
- Can be applied by roller or airless pump spray over levelled surfaces or in moulded concrete applications, after removing the moulds and a matt surface is achieved.

### Post-Application Protection & Suggestions

- The temperature should be within 5 – 35 °C during application.
- The surface to be applied should be clean and sound, loose particles should be removed and there should not be standing water.
- Tecnica 22 CW should not be collected on the surface.
- Shading can be observed on the surface in non-homogenous applications.
- Consumption may increase at open air and high air current conditions.
- Tools and equipment to be used should be clean.
- Additional precaution is required against extra high or low temperature conditions during application and drying process.
- Tools and and equipment used should be cleaned with water after the application.
- Appropriate working clothes, protecting glasses, gloves and masks should be worn during application.
- Shelf life is valid for appropriate storage conditions without opening the pails.
- For further information refer to the safety data sheet.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- 30 kg plastic drums.

# Tecnica 64 LS

## Lithium Silicate Based Liquid Surface Hardener



Technical Properties	(at 23°C and 50% RH)
Appearance	Transparent liquid
Shelf Life	24 months in unopened package in dry environment
Density	1.13 g/cm <sup>3</sup>
Drying Time	4 - 6 hours
Consumption	80 - 100 ml/m <sup>2</sup> (new concrete)



### Description

Water based, VOC free, lithium silicate liquid hardener and densifier that impregnates new or existing concrete surfaces and provides dust free finish.

### Fields of Application

- Used indoors and outdoors,
- On old/new concrete and cement based surfaces,
- On floors of industrial plants where no dusting is desired,
- Hangar and workshops,
- Garages and parking lots,
- Warehouses,
- Areas subject to rubber wheel vehicle traffic.

### Properties

- Thanks to its high lithium content, it reacts with the lime in the structure of the concrete and makes the surface chemically and mechanically more resistant.
- Gives a glossy appearance on the surface by mechanical means of polishing.
- Densifies, seals and dust proofs concrete surfaces.
- Prevents efflorescence.
- Prevents wear caused by mechanical load.
- Places can be opened to traffic 4-6 hours after the application.

### Application Instructions

#### Surface Quality

- The concrete slabs to be treated must be of a minimum C25 (25 N/mm<sup>2</sup>) class.

#### On New Concrete

- Tecnica 64 LS applications on new concrete do not require surface preparation. If there is curing material on the surface, it must be completely removed before application.

- Wait until the carrier concrete becomes cured at a level that allows walking on it and the application must be started immediately after the joints are cut. If there is dirt, residue or ponding on the surface, it must be removed.

- The concrete to be applied should be cured for at least 7 days.

#### On Old Concrete

- The surface where Tecnica 64 LS will be applied must be free of all dirt and debris that will prevent penetration of the product and it must be ensured that the surface is intact.

### Application Method

- Tecnica 64 LS should be applied on the surface by using a low pressure spraying machine in a manner that it covers the entire surface. Where necessary, it should be distributed on the surface by using a thin bristle brush, microfibre mop or a rubber trowel.
- Tecnica 64 LS should be poured on the surface and spread evenly where no spraying machine is used. It should be ensured that there is no ponding of the product during application.
- While the consumption is about 80-150 ml/m<sup>2</sup> on new concrete, it can be around 100-200 ml/m<sup>2</sup> on old concrete.
- It must be ensured that during the Tecnica 64 LS application, the surface is completely soaked with Tecnica 64 LS during the first 20-30 minutes. If the concrete floor dries completely by absorbing the product in a shorter time, it should be applied for the second time.

### Post-Application Protection & Suggestions

- Application should not be done in environments with excessive air flow.
- If polishing is carried out after application, damage and dents on the floor must be repaired with suitable products before application and protrusions must be smoothed by mechanical methods.
- Local variations in compounds of the substrate such as water and cement in concrete formula may cause slight color differences.
- It is normal to observe color differences during drying.

- Proper timing and polishing techniques must be used.

- Ambient and floor temperature should be between 5-35°C during application.

- High temperature increases the application speed, low temperature decreases the application time and speed.

- Efflorescence may occur on the surface under conditions where relative humidity is below 40%.

- Sweating, slow curing and hardening may occur under conditions where ambient relative humidity is over 80%.

- The surfaces on which the product splashes unintentionally during application should be rinsed off immediately.

- Shelf life information is valid when the product is stored in an unopened packaging and under appropriate storage conditions.

- Tools and equipment used should be cleaned with water after the application. Dried residues can be cleaned by using mechanical means.

- The application surface should not be cleaned with acidic (pH <7.0) cleaning agents afterwards.

- Refer to the Safety Data Sheet for further information.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.

- Packages should be protected from water, frost and adverse weather conditions.

- Shelf life is maximum 24 months conditional to complying with the above mentioned storage conditions.

### Packaging

- 30 L plastic drum.

# Tecnica 32 DS

## Quartz Aggregate Surface Hardener



### Technical Properties

Technical Properties	(at 23°C and 50% RH)
Appearance / Colours	Red/Green/Gray/Natural powder
Shelf Life	12 months
Consumption	4 - 6 kg/m <sup>2</sup>
Surface Temperature	(+5°C) – (35 °C)
Compressive Strength (7 days, EN 196-1)	75 N/mm <sup>2</sup>
Abrasion Resistance (28 days, TS 699)	≤ 2,5 cm <sup>3</sup> / 50 cm <sup>2</sup>

- For mechanical applications; Tecnica 32 DS should be spread evenly on the surface just immediately after it is applied to the surface with the automatic spreader with the amount of 5 kg/m<sup>2</sup> at once.
- Application in two steps is recommended for manual applications (3 kg/m<sup>2</sup> at first step, 2 kg/m<sup>2</sup> at the second step).
- Careful and homogenous scattering over the surface should be provided by preventing the variations. Scattering to the areas more than 2 m away distances is not recommended.
- Wait until the material scattered over the surface is moisturized enough by absorbing the water content of the concrete. The moisture level can be tracked by the colour change.
- The surface should be compacted by a low speed mechanical trowel.
- Water addition to the surface where the hardener applied is not allowed.
- Final finishing can be made manually or by mechanical trowel.
- Looseness or laitance on the surface indicates that the concrete is still fresh.
- Unless the concrete reaches the minimum required hardening conditions, the surface should be compressed by low speed tray finishing and then final knife finishing should be made with high speed.

### Post-Application Protection & Suggestions

- Do not apply in high weather current conditions.
- Do not use on concrete surfaces with fly ash content due to its low workability.
- Water and cement content properties of the concrete may cause slight colour variances.
- Protection against environmental effects and clean application provides colour consistency.
- Colour shading during the drying process is natural.
- Correct timing and trowelling techniques are obligatory.
- The surface and medium temperature should be within 5-35 °C.
- Low temperatures decrease and high temperatures increase the application speed.
- Efflorescence may occur at relative humidity conditions lower than 40%.
- Late curing and hardening may occur at relative humidity conditions higher than 80%.
- Anti-slip surfaces can be provided by chemical abrasion method.
- The impact and abrasion resistance of the surface increase by the surface hardener application, the mechanical strength of the concrete is not affected.
- Curing process is required after Tecnica 32 DS application. Tecnica 22 CW is recommended.
- Shelf life is valid for appropriate storage conditions without opening the pails.
- The tools and equipment used should be cleaned with water immediately after the application. The residues can be cleaned mechanically after hardening.
- For further information refer to the safety data sheet.



### Description

Cementitious, quartz aggregate containing dry shake, ready to use surface hardener for the surfaces exposed to medium-heavy wear.

### Fields of Application

- Suitable for interior and exterior applications.
- Industrial building floors.
- Maintenance workshops and hangers.
- Garages and carparks.
- Storage areas.
- Loading areas.
- Areas exposed to tire wheeled vehicle traffic.

### Properties

- Easily applicable on fresh concrete.
- Provides an even and homogenous surface.
- Prevents abrasion due to mechanical wear.
- Provides resistance against impact.
- Delays dusting of the surface.

### Preparation of Substrates

- The quality of the provided concrete should not vary, the strength should be uniform over the surface.
- The concrete floor should be totally compressed, have the class of min. C25 (dose of 350, 25 N/mm<sup>2</sup>) and prepared with minimum water/cement ratio.
- The thickness of the applied concrete should be minimum 15 cm.
- The air entrained concrete is not convenient for surface hardener application.
- The fresh concrete surface to be applied should have been levelled with a wooden trowel.

### Application

- The concrete surface should reach a minimum bearing capacity. The footprint formation when walked over the surface should have a depth of 0.5-1.5 cm.
- Wait until the bleeding water should be evaporated from the surface due to conditions.

### Colours



EN 13813  
TS EN 1504-2'ye uygun  
Poz. No. 10.300.2094 (Grİ)  
Poz. No. 10.300.2095 (Kırmızı)  
Poz. No. 10.300.2096 (Yeşil)



# Tecnica 34 DS

## Corundum Aggregate Surface Hardener



### Technical Properties

Technical Properties	(at 23°C and 50% RH)
Appearance / Colours	Red/Green/Gray/Natural powder
Shelf Life	12 months
Consumption	4 - 8 kg/m <sup>2</sup>
Surface Temperature	(+5°C) – (35 °C)
Compressive Strength (7 days, EN 196-1)	> 80 N/mm <sup>2</sup>
Abrasion Resistance (28 days, TS 699)	< 2 cm <sup>3</sup> / 50 cm <sup>2</sup>

- Wait until the bleeding water should be evaporated from the surface due to conditions.
- For mechanical applications; Tecnica 34 DS should be spread evenly on the surface just immediately after it is applied to the surface with the automatic spreader with the amount of 4-8 kg/m<sup>2</sup> at once.
- Application in two steps is recommended for manual applications (2/3 of the total amount at first step, 1/3 of the total amount at the second step).
- Careful and homogenous scattering over the surface should be provided by preventing the variations.
- Scattering to the areas more than 2 m away distances is not recommended.
- Wait until the material scattered over the surface is moisturized enough by absorbing the water content of the concrete. The moisture level can be tracked by the colour change.
- The surface should be compacted by a low speed mechanical trowel.
- Water addition to the surface where the hardener applied is not allowed.
- Final finishing can be made manually or by mechanical trowel.
- Looseness or laitance on the surface indicates that concrete is still fresh.
- Unless the concrete reaches the minimum required hardening conditions, the surface should be compressed by low speed tray finishing and then final knife finishing should be made with high speed.



### Description

Cementitious, corundum and specially selected aggregate mix containing dry shake, ready to use surface hardener for the surfaces exposed to medium-heavy wear.

### Fields of Application

- Suitable for interior and exterior applications.
- Industrial building floors.
- Maintenance workshops and hangers.
- Garages and carparks.
- Storage areas.
- Loading areas.
- Areas exposed to tire wheeled vehicle traffic.
- Airplane hangers.
- Helicopter landing areas.

### Properties

- Easily applicable on fresh concrete.
- Provides an even and homogenous surface.
- Prevents abrasion due to mechanical wear.
- Provides resistance against impact.
- Delays dusting of the surface.

### Preparation of Substrates

- The quality of the provided concrete should not vary, the strength should be uniform over the surface.
- The concrete floor should be totally compressed, have the class of min. C25 (dose of 350, 25 N/mm<sup>2</sup>) and prepared with minimum water/cement ratio.
- The thickness of the applied concrete should be minimum 15 cm.
- The air entrained concrete is not convenient for surface hardener application.
- The fresh concrete surface to be applied should have been levelled with a wooden trowel.

### Application

- The concrete surface should reach a minimum bearing capacity. The footprint formation when walked over the surface should have a depth of 0.5-1.5 cm.

The residues can be cleaned mechanically after hardening.

- For further information refer to the safety data sheet.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- 25 kg multi-ply paper bags.

### Colours



EN 13813  
TS EN 1504-2'ye uygun  
Poz. No. 10.300.2100 (Grİ)  
Poz. No. 10.300.2101 (Kırmızı)  
Poz. No. 10.300.2102 (Yeşil)



# Tecnica 132

## Epoxy Based, Solvent Free, Two Component Economical Primer



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance / Colours	Component A: Brownish liquid Component B: Brownish liquid
Shelf Life	24 months when stored in original sealed packaging.
Mixing Ratio (A/B)	16.3 kg / 3.7 kg
Mixture Density	App. 1.46 g/cm <sup>3</sup>
<b>Application Data</b>	
Consumption	0.3 - 0.6 kg/m <sup>2</sup>
Surface temperature	10 – 30 °C
Pot life (23 °C)	~25 minutes
Overcoatibility (+20 °C)	12 hours
Final Curing (+20 °C)	7 days
<b>Performance Data</b>	
Shore D Hardness (7 days, DIN 53505)	~75
Compressive Strength (Mortar with silica sand by a ratio of 1 to 9, 7 days, EN 196-1)	~30 N/mm <sup>2</sup>
Flexural Strength (Mortar with silica sand by a ratio of 1 to 9, 7 days, EN 196-1)	~10 N/mm <sup>2</sup>
Bond Strength (EN 4624)	>1.5 N/mm <sup>2</sup> (failure in concrete)
Thermal Resistance	
Permanent exposure:	50 °C
Short term (max. 7 days):	80 °C
Short term (max. 12 hours):	100 °C

### Description

Two component, low viscosity, solvent free, epoxy based primer.

### Fields of Application

- Priming concrete substrates, cement screeds and epoxy mortars
- Normal to strongly absorbent surfaces
- Primer for all Tecnica epoxy floorings
- Binder for repair, levelling mortars and mortar screeds

### Properties

- Low viscosity
- Good penetration ability
- High bond strength
- Solvent free
- Easy application
- Multi-purpose

### Preparation of Substrates

- Concrete substrates to be applied on must be dry, solid and have an enough compressive strength property (min. 25 N/mm<sup>2</sup>).
- Pull off strength of the surface should be min. 1.5 N/mm<sup>2</sup>.
- The substrate must be clean, free of dust, dirt, coatings, curing materials which may prevent adhesion.
- Trial application should be conducted in case of suspicion.
- Surface preparation should be done by using abrasive blast equipment. Cement laitance should be removed until open textured aggregate level is reached.
- Surface moisture should not exceed 4% in pbw.
- Rising moisture should be avoided. PE sheet coating test is recommended for control.

- Attention should be paid to the surface temperature should maintain within the temperature range of min.10 °C – max. 30 °C and be 3 °C over the dew temperature.
- Cracks should be repaired if necessary.

### Application

- Tecnica 132 is a set of two pre-weighed packs in exact proportions.
- The temperature of the product should be within 15-25 °C.
- The component A should be mixed prior to the addition of the component B. Component B should be added to the component A completely without leaving any residue in the packaging.
- Low speed (300-400 rpm) electrical stirrers should be used for mixing.
- Mixing should be for about 3 minutes until a homogenous mixture is achieved.
- The entire mixture should be poured into another container and remixed for 2 minutes more to ensure a homogenous mixture.
- Over mixing should be avoided in order to prevent air entrainment.
- Silica sand (0.1-0.3 mm) can be added to the mixture in the ratio of 1:1 for thickening purpose, for intermediate layer applications.
- By the addition of silica sand in the ratio of 1:7- 1:8 w/w material can be used as a levelling mortar.
- By the addition of silica sand in the ratio of 1:8 w/w material can be used as a repair mortar.

### Application Method

#### Primer:

- Can be applied by roller, brush or squeegee.
- Continuous, non-porous layers of application should be ensured.
- For concrete surfaces having low/medium porosity 1 layer of application and for highly porous surfaces 2 layers of application is recommended.

#### Levelling Mortar:

- Can be applied by a trowel or squeegee to the required thickness after adding the required amount of silica sand for usage as a levelling mortar.

#### Intermediate layer coating:

- Tecnica 132 should be poured to the surface and spread by a trowel. Just after spreading the material, a homogenous thickness should be provided by a spiked roller. After the application, while the surface is still tacky (within 15-30 minutes) spread excess amount of quartz sand to the surface and remove the excess amount by sweeping after complete drying.

#### Bonding Bridge:

- Can be applied by roller, brush or squeegee.

#### Mortar Coating/Repair Mortar:

- Apply the mortar screed evenly on the still "tacky" bonding bridge, using levelling battens and screed rails if necessary. After a short waiting time compact and smoothen the mortar with a trowel or Teflon coated power float (usually 20 – 90 rpm).



### Consumption

- 0.3 – 0.6 kg/m<sup>2</sup> as a primer. Usage and consumption depends on the surface properties and system solutions.

### Post-Application Protection & Suggestions

- If the application will be done by preparing a mortar with sand (aggregate) addition, the maximum grain size should be 1/3 of the thickness of the finalized coating thickness.
- Aggregates and the most convenient mixture should be selected according to the aggregate type, application temperature and application purpose.
- Application is not allowed in the areas where rising moisture is existent.
- Primer should not be collected on the surface.
- Tecnica 132 is not convenient for permanent water contact until it is coated with a suitable coating.
- Trial applications should be conducted to decide convenient aggregate type and ratio.
- Attention should be paid to the temperature, moisture and dew point conditions. Application should not be continued if the temperature decreases, rising temperature during the application or before complete drying can create pinholes on the surface.
- Application should be avoided in excess air current conditions.
- Since Tecnica 132 is an epoxy resin based product; properties like drying and curing times, viscosity, pot life may exhibit variations depending on the temperature conditions. These properties decrease

at high temperatures and increase with the lower temperatures.

- Tecnica 132 should be applied by professional applicators.
- Surface should be protected against direct water contact for at least 24 hours. Water contact leads coating to lose its properties and it should be removed and reapplied.
- Shelf life is valid for appropriate storage conditions without opening the pails.
- Appropriate working clothes, protecting glasses, gloves and masks should be worn during application.
- For further information refer to the safety data sheet.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- Component A: 16.3 kg containers
- Component B: 3.7 kg containers
- Components A+B: 20 kg ready to mix units

# Tecnica 142

## Epoxy Primer, Levelling Mortar, Mortar Screed



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance / Colours	Component A: Brownish liquid Component B: Brownish liquid	
Shelf Life	24 months when stored in original sealed packaging.	
Mixing Ratio (A/B)	13.9 kg / 6.1 kg	
Mixture Density	~1.10 g/cm <sup>3</sup>	
<b>Application Data</b>		
Consumption	0.3 - 0.5 kg/m <sup>2</sup>	
Surface temperature	10 – 30 °C	
Pot life (23 °C)	~20 minutes	
Overcoatibility (+20 °C)	12 hours	
Final Curing (+20 °C)	7 days	
<b>Performance Data</b>		
Shore D Hardness (7 days, DIN 53505)	~75	
Compressive Strength (Mortar with silica sand by a ratio of 1 to 9, 7 days, EN 196-1)	~35 N/mm <sup>2</sup>	
Flexural Strength (Mortar with silica sand by a ratio of 1 to 9, 7 days, EN 196-1)	~15 N/mm <sup>2</sup>	
Bond Strength (EN 4624)	>2 N/mm <sup>2</sup> (failure in concrete)	
Thermal Resistance		
Permanent exposure:	50 °C	
Short term (max. 7 days):	80 °C	
Short term (max. 12 hours):	100 °C	

### Description

Two component, low viscosity, solvent free, epoxy based primer.

### Fields of Application

- Priming concrete substrates, cement screeds and epoxy mortars
- Normal to strongly absorbent surfaces
- Primer for all Tecnica epoxy floorings
- Binder for repair, levelling mortars and mortar screeds

### Properties

- Low viscosity
- Good penetration ability
- High bond strength
- Solvent free
- Easy application
- Multi-purpose

### Preparation of Substrates

- Concrete substrates to be applied on must be dry, solid and have an enough compressive strength property (min. 25 N/mm<sup>2</sup>). Pull off strength of the surface should be min. 1.5 N/mm<sup>2</sup>.
- The substrate must be clean, free of dust, dirt, coatings, curing materials which may prevent adhesion.
- Trial application should be conducted in case of suspicion.
- Surface preparation should be done by using abrasive blast equipment. Cement laitance should be removed until open textured aggregate level is reached.
- Surface moisture should not exceed 4% pbw.
- Rising moisture should be avoided. PE sheet coating test is recommended for control.
- Attention should be paid to the surface temperature should maintain within the temperature range of min.10°C – max. 30°C and be 3 °C over the dew temperature.

- Cracks should be repaired if necessary.

- Before application, the suitability of surface moisture, relative humidity, temperature and dew point conditions should be checked.

### Application

- Tecnica 142 is supplied as a set of two pre-weighted packs in exact proportions.
- The temperature of the product should be within 15-25 °C.
- The component A should be mixed prior to the addition of the component B. Component B should be added to the component A completely without leaving any residue in the packaging.
- Low speed (300-400 rpm) electrical stirrers should be used for mixing.
- Mixing should be for about 3 minutes until a homogenous mixture is achieved.
- The entire mixture should be poured into another container and remixed for 2 minutes more to ensure a homogenous mixture.
- Over mixing should be avoided in order to prevent air entrainment.
- Silica sand (0.1-0.3 mm) can be added to the mixture in the ratio of 1:0.5 – 1:2 depending on the surface, for thickening purpose, for usage as a primer.
- By the addition of silica sand in the ratio of 1:10, w/w material can be used as a repair mortar.

### Application Method

#### Primer:

- Can be applied by roller, brush or squeegee.
- Continuous, non-porous layers of application should be ensured.
- If the surface of the primer is going to be covered with an epoxy or polyurethane coating; approximately 1 kg/m<sup>2</sup> of silica sand (0.1-0.3 mm grain sized) should be spread on the surface while it is still tacky.

#### Levelling Mortar:

- After the addition of required silica sand for the levelling purpose, application can be done by trowel or squeegee.

#### Bonding Bridge:

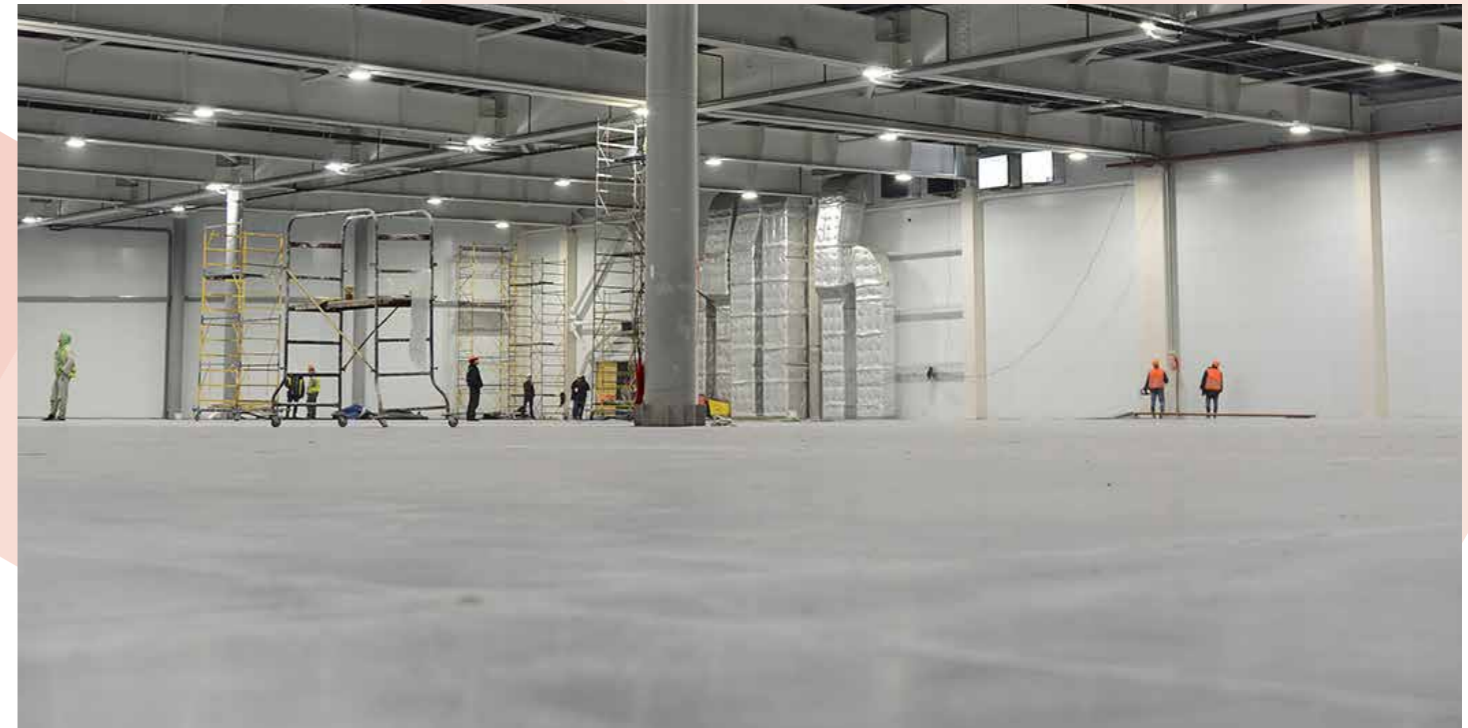
- Can be applied by roller, brush or squeegee.

#### Mortar Coating/Repair Mortar:

- Apply the mortar screed evenly on the still “tacky” bonding bridge, using levelling battens and screed rails if necessary. After a short waiting time compact and smoothen the mortar with a trowel or Teflon coated power float (usually 20 – 90 rpm).

#### Consumption

- 0.3 – 0.5 kg/m<sup>2</sup> as a primer. Usage and consumption depends on the surface properties and system solutions.



### Post-Application Protection & Suggestions

- If the application will be done by preparing a mortar with sand (aggregate) addition, the maximum grain size should be 1/3 of the thickness of the finalized coating thickness.
- Aggregates and the most convenient mixture should be selected according to the aggregate type, application temperature and application purpose.
- Application is not allowed in the areas where rising moisture is existent.
- Primer should not be collected on the surface.
- Tecnica 142 is not convenient for permanent water contact until it is coated with a suitable coating.
- Trial applications should be conducted to decide convenient aggregate type and ratio.
- Attention should be paid to the temperature, moisture and dew point conditions. Application should not be continued if the temperature decreases, rising temperature during the application or before complete drying can create pinholes on the surface.
- Application should be avoided in excess air current conditions.
- Since Tecnica 142 is an epoxy resin based product; properties like drying and curing times, viscosity, pot life may exhibit variations depending on the temperature conditions. These properties decrease at high temperatures and increase with the lower temperatures.
- Tecnica 142 should be applied by professional applicators.

- Surface should be protected against direct water contact for at least 24 hours. Water contact leads coating to lose its properties and it should be removed and reapplied.
- Shelf life is valid for appropriate storage conditions without opening the pails.
- Appropriate working clothes, protecting glasses, gloves and masks should be worn during application.
- For further information refer to the safety data sheet.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- Component A: 13.9 kg containers
- Component B: 6.1 kg container
- Components A+B: 20 kg ready to mix units

# Tecnica 152

## Moisture Tolerant Epoxy Primer



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance / Colours	Component A: Transparent liquid Component B: Brownish liquid
Chemical Structure	Solvent free epoxy resin
Shelf Life	24 months when stored in original sealed packaging.
Pot Life (23°C)	40 minutes
Mixing Ratio (A/B)	13.1 kg / 6.9 kg
Mixture Density	~1.10 g/cm <sup>3</sup>
<b>Application Data</b>	
Consumption	0.3 - 0.5 kg/m <sup>2</sup>
Surface temperature	10 - 30 °C
Waiting time/overcoatibility (+20 °C)	12 - 24 hours
Final Curing	
+10 °C	10 days
+20 °C	7 days
+30 °C	4 days
<b>Performance Data</b>	
Shore D Hardness (7 days, DIN 53505)	~75
Bond Strength (EN 4624)	>1.5 N/mm <sup>2</sup> (failure in concrete)
Thermal Resistance	
Permanent exposure:	50 °C
Short term (max. 7 days):	80 °C
Short term (max. 12 hours):	100 °C

### Description

Two component, low viscosity, solvent free, epoxy based primer can be applied on dry, moist or wet concrete and mineral surfaces.

### Fields of Application

- Priming concrete substrates, cement screeds and epoxy mortars,
- Normal and strongly absorbent surfaces,
- Moist and wet surfaces as a moisture barrier,
- Primer for all Tecnica epoxy floorings and Izopor polyurethane waterproofing systems,
- Binder for repair, levelling mortars and mortar screeds,
- Internal and external use.

### Properties

- Low viscosity.
- Good penetration ability.
- High bond strength.
- Solvent free.
- Easy application.
- Tolerates the risk of resin based systems swelling by preventing moisture transmission.
- For external use also if will be coated.

### Preparation of Substrates

- Concrete substrates to be applied on must be dry, solid and have an enough compressive strength property (min. 25 N/mm<sup>2</sup>) and min 3 weeks cured.
- Pull off strength of the surface should be min. 1.5 N/mm<sup>2</sup>.
- The substrate must be clean, free of dust, dirt, coatings, curing materials which may prevent adhesion.
- Trial application should be conducted in case of suspicion.
- Surface preparation should be done by using abrasive blast equipment. Cement laitance should be removed until open textured aggregate level is reached.

- It can be applied on wet surfaces however, there should be no ponding on the surface. Water on wet surfaces should be removed from the floor with an absorbent sponge or similar material. If surface moisture more than 4% pbw Tecnica 152 must be used.
- Attention should be paid to the surface temperature should maintain within the temperature range of min.10°C – max. 30°C and be 3°C over the dew temperature.
- Cracks should be repaired if necessary.
- Before application, the suitability of surface moisture, relative humidity, temperature and dew point conditions should be checked.

### Application

- Tecnica 152 is supplied as a set of two pre-weighted packs in exact proportions.
- The temperature of the product should be within 15-25 °C.
- The component A should be mixed prior to the addition of the component B. Component B should be added to the component A completely without leaving any residue in the packaging.
- Low speed (300-400 rpm) electrical stirrers should be used for mixing.
- Mixing should be for about 3 minutes until a homogenous mixture is achieved.
- The entire mixture should be poured into another container and remixed for 2 minutes more to ensure a homogenous mixture.
- Over mixing should be avoided in order to prevent air entrainment.
- Silica sand (0.1-0.3 mm) can be added to the mixture in the ratio of 1:0.50 – 1:2 depending on the surface profile, for thickening purpose, for usage as a primer.
- By the addition of silica sand in the ratio of 1:9 w/w material can be used as a repair mortar.

### Application Method

#### Primer:

- Can be applied by roller, brush or squeegee.
- Continuous, non-porous layers of application should be ensured.
- If the surface of the primer is going to be covered with an epoxy or polyurethane coating; approximately 1 kg/m<sup>2</sup> of silica sand (0.1-0.3 mm grain sized) should be spread on the surface while it is still tacky.

#### Mortar Coating/Repair Mortar:

- Apply the mortar screed evenly on the still "tacky" bonding bridge, using levelling battens and screed rails if necessary. After a short waiting time compact and smoothen the mortar with a trowel or Teflon coated power float (usually 20 – 90 rpm).

#### Consumption

- 0.3 – 0.5 kg/m<sup>2</sup> as a primer. Usage and consumption depends on the surface properties and system solutions.

#### Post-Application Protection & Suggestions

- If the application will be done by preparing a mortar with sand (aggregate) addition, the maximum grain size should be 1/3 of the thickness of the finalized coating thickness.
- Aggregates and the most convenient mixture should be selected according to the aggregate type, application temperature and application purpose.
- Application is not allowed in the areas where rising moisture is existent.
- Primer should not be collected on the surface.
- Trial applications should be conducted to decide convenient aggregate type and ratio.



- Attention should be paid to the temperature, moisture and dew point conditions. Application should not be continued if the temperature decreases, rising temperature during the application or before complete drying can create pinholes on the surface.
- Application should be avoided in excess air current conditions.
- Since Tecnica 152 is an epoxy resin based product; properties like drying and curing times, viscosity, pot life may exhibit variations depending on the temperature conditions. These properties decrease at high temperatures and increase with the lower temperatures.
- Tecnica 152 should be applied by professional applicators.
- Shelf life is valid for appropriate storage conditions without opening the pails.
- Appropriate working clothes, protecting glasses, gloves and masks should be worn during application.
- For further information refer to the safety data sheet.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- Component A:13.1 kg containers
- Component B: 6.9 kg containers
- Components A+B: 20 kg ready to mix units

# Tecnica 162

## Multipurpose Epoxy Based Primer



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance / Colours	Component A: Transparent liquid Component B: Amber colored liquid	
Shelf Life	24 months when stored in the original sealed packaging	
Mixing Ratio (A/B)	12.36 kg / 5.64 kg	
Mixture Density	~ 1,10 ± 0,02 kg/lt	
<b>Application Data</b>		
Surface Temperature	(+10 °C)-(+30 °C)	
Working Time	Maximum 25 minutes	
Overcoatibility (20 °C)	8 hours	
Final Cure (+20°C)	7 days	
<b>Performance Data</b>		
Shore D Hardness (7 days, DIN 53505)	≥ 75	
Compressive Strength (Mortar with sand by a ratio of 1:9, 7 days, EN 196-1)	≥ 30 N/mm <sup>2</sup>	
Flexural Strength (Mortar with silica sand by a ratio of 1:9, 7 days, EN 196-1)	≥ 10 N/mm <sup>2</sup>	
Bond Strength (EN 4624)	≥ 2 N/mm <sup>2</sup> (failure in concrete)	

### Description

Two-component, solvent-free, epoxy-based primer which can be used under waterproofing materials and floor coverings and is resistant to chemicals due to its phenalkamine curing properties.

### Fields of Application

- Over concrete substrates, cement screeds,
- As a primer under Tecnica floor coatings,
- As a primer under polyurethane floor coatings,
- As a primer under polyurethane/ polyurea waterproofing systems,
- As a primer under self-leveling floor screeds and decorative floor coatings,
- With the addition of the appropriate amount of silica sand, it can be used as a repair mortar.

### Properties

- Provides excellent adherence on challenging substrates.
- Fast curing properties in low temperatures (+10 °C) and high humidity environments.
- Low viscosity.
- Solvent free.
- Easy to apply.

### Preparation of Substrates

- Concrete substrates to be applied on must be dry, solid and have an enough compressive strength property (min. 25 N/mm<sup>2</sup>).
- Pull off strength of the surface should be minimum 1.5 N/mm<sup>2</sup>.
- The substrate must be clean, free of dust, dirt, cement laitance, coatings, curing materials which may prevent adhesion.
- Surface preparation should be done by using abrasive blast equipment. Cement laitance should be removed until open textured aggregate level is reached.
- The concrete surface to be applied should be cleaned by using a high pressure water jet.

- Surface moisture should not exceed 4% pbw.
- Rising moisture should be avoided. PE sheet coating test is recommended for control.
- Attention should be paid to the surface temperature, which must be within the range of minimum +10 °C – maximum +30 °C and be 3 °C over the dew temperature.
- Before application, the suitability of surface moisture, relative humidity, temperature and dew point conditions should be checked.

### Application

- Tecnica 162 is supplied as a set of two pre-weighed packs in exact proportions.
- The temperature of the product should be within 15-25 °C.
- The component A should be mixed prior to the addition of the component B. Component B should be added to the component A completely without leaving any residues in the packaging.
- Components A and B should be mixed with a stirrer 300-400 rpm for 3-4 minutes in the stated mixing proportions.
- It should be mixed continuously for 3 minutes until a homogeneous mixture is obtained.
- Over mixing should be avoided in order to prevent air entrainment.
- Silica sand (0.1-0.3 mm) can be added to the mixture in the ratio of 1:0.5 – 1:2 depending on the surface characterize, for thickening purpose, to use as a primer.
- Application temperature should be between +15 °C and +25 °C. At high temperatures, drying and curing times, viscosity and, accordingly, consumption may decrease, while at low temperatures this time may increase.
- Can be applied by brush or roller, or by pulling on the surface with a flat trowel.
- Continuous, non-porous layers of application should be ensured.

- If the surface of the primer is to be coated with an epoxy or polyurethane coating; silica sand should be sprinkled with a minimum grain size of 0.3 mm and a maximum grain size of 1.0 mm, at a consumption of 1 kg/m<sup>2</sup>, while the primer is still wet.
- Second coat application should not exceed 48 hours, and if it is exceeded surface must be thoroughly abraded to give an adequate mechanical key.

### Consumption

- 0.3 – 0.5 kg/m<sup>2</sup> as a primer. Usage and consumption depends on the surface properties and system solutions.

### Post-Application Protection & Suggestions

- If the application will be done by preparing a mortar with sand (aggregate) addition, the maximum grain size should be 1/3 of the thickness of the finalized coating thickness.
- Aggregates and the most convenient mixture should be selected according to the aggregate type, application temperature and application purpose.
- Application is not allowed in the areas where rising moisture is exist.
- Primer should not pool on the surface.
- Tecnica 162 is not convenient for permanent water contact until it is coated with a suitable coating.
- Trial applications should be conducted to decide convenient aggregate type and ratio.
- Attention should be paid to the temperature, moisture and dew point conditions. Application should not be continued if the temperature decreases. Rising temperature during the application or before complete drying can create pinholes on the surface.
- Application should be avoided in excess air current conditions.



- Since Tecnica 162 is an epoxy resin based product; properties like drying and curing times, viscosity, pot life may exhibit variations depending on the temperature conditions. These properties decrease at high temperatures and increase with the lower temperatures.
- Tecnica 162 should be applied by professional applicators.
- Surface should be protected against direct water contact for at least 24 hours after application. Water contact leads coating to lose its properties and it should be removed and reapplied.
- Shelf life is valid for appropriate storage conditions without opening the pails.
- Appropriate working clothes, protecting glasses, gloves and masks should be worn during application.
- For further information refer to the safety data sheet.

### Storage

- Packages should be kept dry and cool at between +5 °C and +30 °C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 24 months conditional to complying with the above mentioned conditions.

### Packaging

- Component A: 12,36 kg container
- Component B: 5.64 kg container
- Components A+B: 18 kg ready to mix units

# Tecnica 352

## Epoxy Based Two Component Protective Top Coating



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance / Colours	Component A: Coloured liquid Component B: Brownish liquid
Shelf Life	12 months when stored in original sealed packaging.
Mixing Ratio (A/B)	17.0 kg / 3.0 kg
Mixture Density	~1.60 g/cm <sup>3</sup>
<b>Application Data</b>	
Consumption	~0.3 kg/m <sup>2</sup>
Surface temperature	10 – 30 °C
Pot Life	60 minutes (depending on the amount)
Initial Cure (23 °C)	12 hours
Final Cure	7 days
Dry Film Thickness	125 - 250 microns (each layer)
<b>Performance Data</b>	
Bond Strength (EN 4624)	
Bonding to Concrete (EN 1542)	> 2,5 N/mm <sup>2</sup> (7 days)
Bonding to Steel (EN 1542)	> 2,5 N/mm <sup>2</sup> (7 days)
Flexural Strength	~ 35 N/mm <sup>2</sup> (7 days)
Compressive Strength	~ 60 N/mm <sup>2</sup> (7 days)

### Description

Epoxy resin based two component, solvent free, top coating that protects concrete and steel.

### Fields of Application

- Over concrete substrates, cement screeds,
- Normal-medium wear and chemical exposure areas,
- Metal or concrete tanks,
- Potable water reservoirs,
- Car parks and maintenance workshops,
- Food and beverage industries,
- Pharmaceutical and hospital laboratories,
- Production, packaging and storage areas,
- Used as a top coat in vertical applications with its thixotropic formulation that does not run down on the wall.

### Properties

- High mechanical and abrasion strength.
- Chemical resistance.
- Water impermeable.
- Jointless, a uniform surface can be obtained and is easy to clean.
- Solvent free.
- Easy to apply with mohair roller.
- According to METU BS6920 standard, it is suitable for use in contact with water intended for human consumption.

### Preparation of Substrates

- The concrete or metal surface to be coated with Tecnica 352 must be dry, strong and durable.
- Pull off strength of the surface should be minimum 1.5 N/mm<sup>2</sup>.
- The substrate must be clean, free of dust, dirt, cement laitance, coatings, curing materials which may prevent adhesion.
- Weak concrete parts should be removed, pores on the surface should be completely opened.
- Surface should be repaired and levelled.

- Concrete surface should be primed with Tecnica 132 / Tecnica 142 or be levelled to create a smooth surface.
- Surface moisture should not exceed 4% pbw.
- If the surface moisture rate is more than 4% as weight based, the Tecnica 152 moisture barrier epoxy primer should be applied.
- The steel surfaces to be coated must be dry and free of dust, oil and grease. Steel surface should be sanded.
- Rising moisture should be avoided. PE sheet coating test is recommended for control.
- Attention should be paid to the surface temperature should maintain within the temperature range of min.10 °C – max. 30 °C and be 3 °C over the dew temperature.
- Before application, the surface humidity, relative humidity, temperature and dew point conditions must be suitable.

### Application

- Tecnica 352 is supplied as a set of two pre-weighed packs in exact proportions.
- The temperature of the product should be within 15 - 25 °C.
- The component A should be mixed prior to the addition of the component B. Component B should be added to the component A completely without leaving any residue in the packaging.
- Components A and B should be mixed with a stirrer 400-600 rpm for 3-4 minutes in the stated mixing proportions.
- The entire mixture should be poured into another container and remixed for 2 minutes more to ensure a homogenous mixture.
- Over mixing should be avoided in order to prevent air entrainment.

### Application Method

- Tecnica 352 can be applied with a mohair roller on the wall.
- Tecnica 352 can be applied in two coats to ensure complete coverage.
- Second coat application should not exceed 24 hours, and if it is exceeded surface must be thoroughly abraded to give an adequate mechanical key.
- In damaged areas where Tecnica 352 will be applied it is important that the areas to be treated are well abraded using a stiff rotary wire brush to give an adequate key. The surface should be cleaned completely as if applying for the first time.

### Consumption

- Tecnica 352 should be apply 2 coats.
- Tecnica 352 should be applied with a consumption of 0,20 - 0,40 kg/m<sup>2</sup> in one coat.

### Post-Application Protection & Suggestions

- Application is not allowed in the areas where rising moisture is exist.
- Primer should not be pooled on the surface.
- Tecnica 352 is not convenient for permanent water contact until it is coated with a suitable coating.
- Attention should be paid to the temperature, moisture and dew point conditions. Application should not be continued if the temperature decreases, rising temperature during the application or before complete drying can create pinholes on the surface.
- Application temperature should be between +5 °C - +30 °C.
- Application should be avoided in excess air current conditions.



- Since Tecnica 352 is an epoxy resin based product; properties like drying and curing times, viscosity, pot life may exhibit variations depending on the temperature conditions. These properties decrease at high temperatures and increase with the lower temperatures.
- Tecnica 352 should be applied by professional applicators.
- Surface should be protected against direct water contact for at least 24 hours. Water contact leads coating to lose its properties and it should be removed and reapplied.
- For colour matching the same batch numbered products should be used.
- High load applied to a single point, floor heating systems, high temperatures may create traces on the resin.
- Shelf life is valid for appropriate storage conditions without opening the pails.
- Appropriate working clothes, protecting glasses, gloves and masks should be worn during application.
- For further information refer to the safety data sheet.

### Storage

- Packages should be kept dry and cool at between +5 °C and +30 °C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- Component A: 17.0 kg container
- Component B: 3.0 kg container
- Components A+B: 20 kg ready to mix units



# Tecnica 552

## PU - Water Based Matt Appearance Transparent Coating



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Structure	Component A: Reactive Hydroxyl Acrylic Dispersion Component B: Aliphatic Isocyanate	
Appearance	Component A: White Liquid Component B: Transparent Liquid	
Shelf Life	9 months when stored in original sealed packaging.	
<b>Application Data</b>		
Mixing Ratio (A/B)	2.5:0.5 (A:B percentage by weight)	
Mixing Density (A+B)	~1.06 g/ml	
Mixing Viscosity (A+B)	165 mPa.s	
Consumption	0.1 - 0.2 kg /m <sup>2</sup> (one coat)	
Waiting Time Between Coats	2 - 4 hours	
Touch Dry	30 - 50 minutes	
Set to Light Traffic	10 - 12 hours	
Final Curing	7 days	
<b>Performance Data</b>		
Bond Strength (EN13813)	B2	
Impact Resistance (EN 13818)	IR10	
Abrasion Resistance (Taber Test) (EN 1504-2)	< 80 mg (CS17,1000 gr, 1000 cycles)	
Glossy Factor (20/60/85) (ISO 2813)	0.4 / 3.6 / 36.5	
Water Vapor Permeability (EN ISO 7783- 1 EN ISO 7783- 2)	Class 1 sd < 5m	
Tensile Adhesion Strength (EN 1542)	> 1.5	

### Description

Two-component, water based, aliphatic, transparent polyurethane protector and final coat coating material that provides matt appearance and increases resistance to abrasion.

### Fields of Application

- On interior walls and floors.
- On all flooring surfaces as a final coat in epoxy and polyurethane flooring systems.
- On cement-based, coloured decorative floor coatings and totally cured Artcrete applied surfaces.

### Properties

- Highly resistant to wear and abrasion.
- Matt finish and transparent natural appearance.
- Resistant to cleaning chemicals and wetting.
- High stain and surface pollution resistance.
- Water based and solvent free.
- Easy to clean.
- Odour-free and does not harm human and environmental health.
- Easy to apply.

### Preparation of Substrates

- The substrates should be dry, clean, solid and free of adhesion preventive foreign substances such as dust, dirt, mould oil, paint etc.
- If Tecnica 552 is applied on existing resin coatings, sand the entire surface of the coating to guarantee that Tecnica 552 forms a good bond with the substrate.
- Before application, the suitability of surface humidity, relative humidity, temperature and dew point conditions should be checked.

### Application

- Ambient and product temperature should be between +15 °C and +25 °C.
- Add all of the component B into the component A and make sure that there is no material left in the component B bottle.

- Components A and B should be shaken well before mixing.
- Tecnica 552 is in ready sets according to the mixing ratio. To prepare the product, mix component A with component B at a ratio of 2.5:0.5 with a low-speed electric mixer until they are thoroughly blended.
- It should be mixed approximately for 3-4 minutes until it becomes a homogeneous mixture.
- Resting time should be 5 minutes after mixing.
- The mixture should be applied in 2 layers with short-haired roller or microfiber roller.
- Tecnica 552 sets approximately in 3-4 hours. For the second coat application, wait for 3-4 hours between coats.
- Setting time on the epoxy coating surface may vary depending on the ambient conditions.

### Consumption

- Approximately 0.1 – 0.2 kg/m<sup>2</sup>
- 3.0 kg of mixed product is sufficient to cover an area of approximately 15 m<sup>2</sup> (two coats).
- The consumption values may vary depending on the application conditions, surface porosity and surface characteristics.

### Post-Application Protection & Suggestions

- After Tecnica 552 is applied on the surface, care should be taken to protect it from heavy traffic for at least 7 days.
- Avoid pooling on the surface during application.
- Always work wet on wet and make sure to cover all areas avoiding the formation of pools.
- Prior to application confirm temperature, relative humidity and dew point
- The rising temperature during application and before curing can create air voids on the surface.
- In applications to be carried out in extremely cold weather, it should be ensured that the ambient and floor temperatures are increased with the help of heaters.
- Should not be applied in environments with high air flow.

- When applying the product, it is recommended using protective clothing, gloves and safety goggles and to work only in well-ventilated areas.
- After the application, the surface should be protected from direct contact with water for at least 24 hours.
- For further information refer to the safety data sheet.

### Storage

- Packages should be kept dry and cool at between +5 °C and +35 °C in damp free conditions avoiding direct sunlight.
- Packages should be protected from water, frost and severe weather conditions.
- Shelf life is maximum 9 months under above mentioned storage conditions.

### Packaging

- Component A: 2.5 kg plastic drum
- Component B: 0.5 plastic bottle
- Set of 3.0 kg

Chemical Resistance Table	
Olive oil	(+)
Iron oxide	(-)
Cherry juice	(+)
Vinegar	(+)
Coffee	(+)
Acetone	(-)
Ammonia (%10)	(+)
Ethyl Alcohol (%90)	(-)
Distilled Water	(+)
Sodium Hypochlorite	(+)

(+) : Resistant  
(-) : Resistant to short-term exposure.

# Tecnica 542

## PU - Water Based Glossy, Transparent Coating Material



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Structure	Component A: Reactive Hydroxyl Acrylic Dispersion Component B: Aliphatic Isocyanate	
Appearance	Component A: White Liquid Component B: Transparent Liquid	
Shelf Life	9 months when stored in original sealed packaging.	
<b>Application Data</b>		
Mixing Ratio (A/B)	2.5:0.5 (A:B percentage by weight)	
Mixing Density (A+B)	~1.03 g/ml	
Mixing Viscosity (A+B)	165 mPa.s	
Consumption	0.1 - 0.2 kg /m <sup>2</sup> (one coat)	
Waiting Time Between Coats	2 - 4 hours	
Touch Dry	30 - 40 minutes	
Set to Light Traffic	10 - 12 hours	
Final Curing	7 days	
<b>Performance Data</b>		
Bond Strength (EN13813)	B1,5	
Impact Resistance (EN 13818)	IR10	
Abrasion Resistance (Taber Test) (EN 1504-2)	< 100 mg (CS17,1000 gr, 1000 cycles)	
Glossy Factor (20/60/85) (ISO 2813)	60 / 85 / 92	
Water Vapor Permeability (EN ISO 7783- 1 EN ISO 7783- 2)	Class 1 sd < 5m	
Tensile Adhesion Strength (EN 1542)	> 1.0	

### Description

Two-component, water based, aliphatic, transparent polyurethane protector and final coat coating material that provides glossy appearance and increases resistance to abrasion.

### Fields of Application

- On interior walls and floors.
- On all flooring surfaces as a final coat in epoxy and polyurethane flooring systems.
- On cement-based, coloured decorative floor coatings and totally cured Artcrete applied surfaces.

### Properties

- Highly resistant to wear and abrasion.
- Glossy finish and transparent natural appearance.
- Resistant to cleaning chemicals and wetting.
- High stain and surface pollution resistance.
- Water based and solvent free.
- Easy to clean.
- Odour-free and does not harm human and environmental health.
- Easy to apply.

### Preparation of Substrates

- The substrates should be dry, clean, solid and free of adhesion preventive foreign substances such as dust, dirt, mould oil, paint etc.
- If Tecnica 542 is applied on existing resin coatings, sand the entire surface of the coating to guarantee that Tecnica 542 forms a good bond with the substrate.
- Before application, the suitability of surface humidity, relative humidity, temperature and dew point conditions should be checked.

### Application

- Ambient and product temperature should be between +15 °C and +25 °C.
- Add all of the component B into the component A and make sure that there is no material left in the component B bottle.

- Components A and B should be shaken well before mixing.
- Tecnica 542 is in ready sets according to the mixing ratio. To prepare the product, mix component A with component B at a ratio of 2.5:0.5 with a low-speed electric mixer until they are thoroughly blended.
- It should be mixed approximately for 3-4 minutes until it becomes a homogeneous mixture.
- Resting time should be 5 minutes after mixing.
- The mixture should be applied in 2 layers with short-haired roller or microfiber roller.
- Tecnica 542 sets approximately in 3-4 hours. For the second coat application, wait for 3-4 hours between coats.
- Setting time on the epoxy coating surface may vary depending on the ambient conditions.

### Consumption

- Approximately 0.1 – 0.2 kg/m<sup>2</sup>
- 3.0 kg of mixed product is sufficient to cover an area of approximately 15 m<sup>2</sup> (two coats).
- The consumption values may vary depending on the application conditions, surface porosity and surface characteristics.

### Post-Application Protection & Suggestions

- After Tecnica 542 is applied on the surface, care should be taken to protect it from heavy traffic for at least 7 days.
- Avoid pooling on the surface during application.
- Always work wet on wet and make sure to cover all areas avoiding the formation of pools.
- Prior to application confirm temperature, relative humidity and dew point
- The rising temperature during application and before curing can create air voids on the surface.
- In applications to be carried out in extremely cold weather, it should be ensured that the ambient and floor temperatures are increased with the help of heaters.
- Should not be applied in environments with high air flow.

- When applying the product, it is recommended using protective clothing, gloves and safety goggles and to work only in well-ventilated areas.
- After the application, the surface should be protected from direct contact with water for at least 24 hours.
- For further information refer to the safety data sheet.

### Storage

- Packages should be kept dry and cool at between +5 °C and +35 °C in damp free conditions avoiding direct sunlight.
- Packages should be protected from water, frost and severe weather conditions.
- Shelf life is maximum 9 months under above mentioned storage conditions.

### Packaging

- Component A: 2.5 kg plastic drum
- Component B: 0.5 plastic bottle
- Set of 3.0 kg

Chemical Resistance Table	
Olive oil	(+)
Iron oxide	(-)
Cherry juice	(+)
Vinegar	(+)
Coffee	(+)
Acetone	(+)
Ammonia (%10)	(+)
Ethyl Alcohol (%90)	(+)
Distilled Water	(+)
Sodium Hypochlorite	(+)

(+) : Resistant  
(-) : Resistant to short-term exposure.



# Tecnica 242 SL

## Epoxy Based, Solvent Free, Two Component, Self Levelling and Broadcast System



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance / Colours	Component A: Coloured liquid Component B: Transparent liquid
Shelf Life	12 months
Pot Life (23°C)	40 minutes
Mixing Ratio (A/B)	16.4 kg / 3.6 kg
Mixture Density (A+B)	~1.45 kg/l
Mixture Density (1:1 w/w Resin:filler mixture)	~2 kg/l
<b>Application Data</b>	
Surface temperature	10 – 30 °C
Pot life (23 °C)	45 min. (depending on the amount)
Final Curing	7 days
<b>Performance Data</b>	
Shore D Hardness (7 days, DIN 53505)	> 65
Bond Strength (EN 4624)	> 1.5 N/mm <sup>2</sup> (failure in concrete)
Abrasion Resistance (EN ISO 5470-1 Taber)	< 70 mg (CS10, 1000 cycle, 1000gr)
Thermal Resistance	
Permanent exposure:	50 °C
Short term (max. 7 days):	80 °C
Short term (max. 12 hours):	100 °C

### Description

Two component, solvent free, epoxy based self levelling and broadcast system coating material.

### Fields of Application

- On concrete substrates
- Areas subject to normal-medium heavy mechanical wear like storage areas and assembly halls, maintenance workshops, garages, loading ramps
- Multi-floor and underground car parks and maintenance hangars
- Food and beverage industry
- Malls and supermarkets
- Showrooms and exhibition areas
- Garages

### Properties

- Easy application
- High mechanical strength
- High chemical resistance
- Glossy surface finishing
- Slip resistant surface possible
- Solvent free

### Preparation of Substrates

- Concrete substrates to be applied on must be dry, solid and have an enough compressive strength (min. 25 N/mm<sup>2</sup>).
- Pull off strength of the surface should be min. 1.5 N/mm<sup>2</sup>.
- The substrate must be clean, free of dust, dirt, coatings, curing materials which may prevent adhesion.
- Trial application should be conducted in case of suspicion.
- Surface preparation should be done by using abrasive blast equipment. Cement laitance should be removed until open textured aggregate level is reached.
- Surface should be repaired and levelled.
- Surface moisture should not exceed 4% pbw.

- Concrete and screed surfaces should be primed with Tecnica 132 or Tecnica 142 and levelled to obtain an even surface.
- If the surface moisture rate is more than 4% as weight based, the Tecnica 152 moisture barrier epoxy primer should be used.
- Rising moisture should be avoided. PE sheet coating test is recommended for control.
- Attention should be paid to the surface temperature should maintain within the temperature range of min.10 °C – max.30 °C and be 3 °C over the dew temperature.
- Cracks should be repaired if necessary.
- Before application, the suitability of surface moisture, relative humidity, temperature and dew point conditions should be checked.

### Application

- Tecnica 242 SL is supplied as a set of two pre-weighed packs in exact proportions.
- The temperature of the product should be within 15-25 °C. The component A should be mixed prior to the addition of the component B. Component B should be added to the component A completely without leaving any residue in the packaging.
- Low speed (300-400 rpm) electrical stirrers should be used for mixing.
- Mixing should be for about 2 minutes until a homogenous mixture is achieved.
- After mixing components A and B, dry and clean silica sand (0.1-0.3 mm) can be added and mixed for 2 minutes. The entire mixture should be poured into another container and remixed for 2 minutes more to ensure a homogenous mixture.
- Over mixing should be avoided in order to prevent air entrainment.

### Application Method

#### Levelling:

- Rough surfaces need to be levelled first. Therefore use Tecnica 132 or Tecnica 142.

#### Coating:

- Tecnica 242 SL should be poured to the surface and spread by a notched trowel. For a better finishing result, turn the notched trowel and smoothen the surface.
- To obtain an even thickness and get rid of entrained air, use the spiked roller immediately in two directions perpendicular to each other.

#### Broadcast Slip Resistant Coating:

- Tecnica 242 SL should be poured on the surface and spread with a serrated trowel.
- Bubbles should be removed by passing over the surface with a spike roller.
- If the surface of the primer is going to be broadcasted, sprinkle sand within 15-30 minutes at 20 °C after application, first lightly then to excess.

#### Consumption

- 1.7 kg/m<sup>2</sup> of 1:1 w/w Tecnica 242 SL and 0.1-0.3 mm dry and clean quartz sand mixture for 1 mm thickness as a self smoothening wearing course.
- 2.0-2.2 kg/m<sup>2</sup> of 1:1 w/w Tecnica 242 SL and 0.1-0.3 mm dry and clean quartz sand mixture for 1 mm thickness as a broadcast system.
- App. 6 kg/m<sup>2</sup> broadcasting quartz sand (0.4-0.7 mm)
- App. 0.3 kg/m<sup>2</sup> Tecnica 332 coating.
- Usage and consumption depends on the surface properties and system solutions.



### Post-Application Protection & Suggestions

- Application is not allowed in the areas where rising moisture is existent.
- Primer should not be collected on the surface.
- Attention should be paid to the temperature, moisture and dew point conditions. Application should not be continued if the temperature decreases, rising temperature during the application or before complete drying can create pinholes on the surface.
- Application should be avoided in excess air current conditions.
- Since Tecnica 242 SL is an epoxy resin based product; properties like drying and curing times, viscosity, pot life may exhibit variations depending on the temperature conditions. These properties decrease at high temperatures and increase with the lower temperatures.
- Tecnica 242 SL should be applied by professional applicators.
- Surface should be protected against direct water contact for at least 24 hours. Water contact leads coating to lose its properties and it should be removed and reapplied.
- For the surfaces subject to limited exposure having normal absorbency, priming with Tecnica 142 is not required.
- Shelf life is valid for appropriate storage conditions without opening the pails.
- Appropriate working clothes, protecting glasses, gloves and masks should be worn during application.
- For further information refer to the safety data sheet.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- Component A: 16.4 kg containers
- Component B: 3.6 kg containers
- Components A+B: 20 kg ready to mix units

# Tecnica 332

## Solvent Free, Two Component, Epoxy Roller and Seal Coat



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance / Colours	Component A: Coloured liquid Component B: Brownish liquid
Shelf Life	12 months
Mixing Ratio (A/B)	17.0 kg / 3.0 kg
Mixture Density	~1.65 g/cm <sup>3</sup>
<b>Application Data</b>	
Consumption	~0.3 kg/m <sup>2</sup>
Surface temperature	10 – 30 °C
Pot life	60 minutes (depending on the amount)
Final Curing	7 days
<b>Performance Data</b>	
Shore D Hardness (7 days, DIN 53505)	80 (28 gün / 23 °C)
Bond Strength (EN 4624)	>1.5 N/mm <sup>2</sup> (failure in concrete)
Abrasion Resistance (EN ISO 5470-1 Taber)	<150 mg (CS17, 1000 cycle, 1000 g)
Thermal Resistance	
Permanent exposure:	50 °C
Short term (max. 7 days):	80 °C
Short term (max. 12 hours):	100 °C

### Description

Two component, solvent free epoxy based final coat applied by roller.

### Fields of Application

- Over concrete substrates, cement screeds
- As a final coat for broadcast multi-layer systems
- Normal-medium wear and chemical exposure areas
- Car parks and maintenance workshops
- Control rooms
- Food and beverage industries
- Production, packaging and storage areas
- Galleries and exhibition areas
- As floor coating for ramps
- Garages

### Properties

- Easy application
- High mechanical strength
- High abrasion resistance
- Chemical resistance
- Glossy surface finishing
- Liquid impermeable
- Yellowing due to UV exposure does not affect mechanical resistance
- Solvent free

### Preparation of Substrates

- Substrates to be applied on must be dry, solid and have an enough compressive strength property (min. 25 N/mm<sup>2</sup>).
- Pull off strength of the surface should be min. 1.5 N/mm<sup>2</sup>.
- The substrate must be clean, free of dust, dirt, coatings, curing materials which may prevent adhesion.
- Trial application should be conducted in case of suspicion.

- Surface preparation should be done by using abrasive blast equipment. Cement laitance should be removed until open textured aggregate level is reached.
- Weak concrete parts should be removed, pores on the surface should be completely opened.
- Surface should be repaired and smoothened.
- Surface moisture should not exceed 4% pbw.
- Surface should be primed with Tecnica 132 / Tecnica 142 or be levelled to create a smooth surface.
- If the surface moisture rate is more than 4% as weight based, the Tecnica 152 moisture barrier epoxy primer should be used.
- Rising moisture should be avoided. PE sheet coating test is recommended for control.
- Attention should be paid to the surface temperature should maintain within the temperature range of min. 10 °C – max. 30 °C and be 3 °C over the dew temperature.

### Application

- Tecnica 332 is supplied as a set of two pre-weighted packs in exact proportions.
- The temperature of the product should be within 15-25 °C.
- The component A should be mixed prior to the addition of the component B. Component B should be added to the component A completely without leaving any residue in the packaging.
- Low speed (300-400 rpm) electrical stirrers should be used for mixing.
- Mixing should be for about 2 minutes until a homogenous mixture is achieved.
- The entire mixture should be poured into another container and remixed for 2 minutes more to ensure a homogenous mixture.
- Over mixing should be avoided in order to prevent air entrainment.

### Application Method

#### Coating:

- Can be applied with a short pile roller.

#### Final Coat:

- Tecnica 332 should be spread over the surface by a squeegee and finalized with a short pile roller.

#### Consumption

- App. 0.25 – 0.3 kg/m<sup>2</sup> for a single layer as a roller coating.

#### Post-Application Protection & Suggestions

- Application is not allowed in the areas where rising moisture is existent.
- Primer should not be collected on the surface.
- Tecnica 332 is not convenient for permanent water contact until it is coated with a suitable coating.
- Attention should be paid to the temperature, moisture and dew point conditions. Application should not be continued if the temperature decreases, rising temperature during the application or before complete drying can create pinholes on the surface.
- Application should be avoided in excess air current conditions.



- Since Tecnica 332 is an epoxy resin based product; properties like drying and curing times, viscosity, pot life may exhibit variations depending on the temperature conditions. These properties decrease at high temperatures and increase with the lower temperatures.
- Tecnica 332 should be applied by professional applicators.
- Surface should be protected against direct water contact for at least 24 hours. Water contact leads coating to lose its properties and it should be removed and reapplied.
- For colour matching the same batch numbered products should be used.
- High load applied to a single point, floor heating systems, high temperatures may create traces on the resin.
- Shelf life is valid for appropriate storage conditions without opening the pails.
- Appropriate working clothes, protecting glasses, gloves and masks should be worn during application.
- For further information refer to the safety data sheet.

### Storage

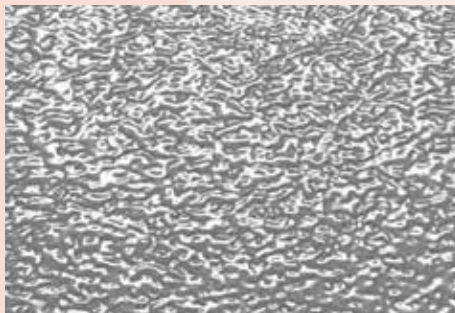
- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- Component A: 17.0 kg containers
- Component B: 3.0 kg containers
- Components A+B: 20 kg ready to mix units

# Tecnica 342 OP

## Textured, Two Component Epoxy Coating



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance / Colours	Component A: Coloured liquid Component B: Brownish liquid
Shelf Life	12 months in original sealed packaging.
Mixing Ratio (A/B)	17.0 kg / 3.0 kg
Mixture Density	~1.64 g/cm <sup>3</sup>
<b>Application Data</b>	
Consumption	~0.5 kg/m <sup>2</sup>
Surface temperature	10 – 30 °C
Pot life	60 minutes (depending on the amount)
Final Curing	7 days
<b>Performance Data</b>	
Shore D Hardness (7 days, DIN 53505)	≥ 70
Bond Strength (EN 4624)	> 1.5 N/mm <sup>2</sup> (failure in concrete)
Abrasion Resistance (EN ISO 5470-1 Taber)	< 70 mg (CS17, 1000 cycle, 1000 g)
Thermal Resistance	
Permanent exposure:	50 °C
Short term (max. 7 days):	80 °C
Short term (max. 12 hours):	100 °C

### Description

Solvent free, two component, textured epoxy coating.

### Fields of Application

- Over concrete substrates, cement screeds
- As a final coat for broadcast multi-layer systems
- Normal-medium wear and chemical exposure areas
- Car parks and maintenance workshops
- Control rooms
- Food and beverage industries
- Production, packaging and storage areas
- Galleries and exhibition areas
- As floor coating for ramps
- Garages

### Properties

- Easy application
- High mechanical strength
- High abrasion resistance
- Chemical resistance
- Textured and anti-slip finishing
- Yellowing due to UV exposure does not affect mechanical resistance
- Solvent free

### Preparation of Substrates

- Substrates to be applied on must be dry, solid and have an enough compressive strength property (min. 25 N/mm<sup>2</sup>).
- Pull off strength of the surface should be min. 1.5 N/mm<sup>2</sup>.
- The substrate must be clean, free of dust, dirt, coatings, curing materials which may prevent adhesion.

- Trial application should be conducted in case of suspicion.
- Surface preparation should be done by using abrasive blast equipment. Cement laitance should be removed until open textured aggregate level is reached.
- Weak concrete parts should be removed, pores on the surface should be completely opened.
- Surface should be repaired and smoothened.
- Surface moisture should not exceed 4% pbw.
- Surface should be primed with Tecnica 132 / Tecnica 142 or be levelled to create a smooth surface.
- If the surface moisture rate is more than 4% as weight based, the Tecnica 152 moisture barrier epoxy primer should be used.
- Rising moisture should be avoided. PE sheet coating test is recommended for control.
- Attention should be paid to the surface temperature should maintain within the temperature range of min.10°C – max. 30°C and be 3°C over the dew temperature.

### Application

- Tecnica 342 OP is supplied as a set of two pre-weighed packs in exact proportions.
- The temperature of the product should be within 15 °C - 25 °C.
- The component A should be mixed prior to the addition of the component B. Component B should be added to the component A completely without leaving any residue in the packaging.
- Low speed (300-400 rpm) electrical stirrers should be used for mixing.
- Mixing should be for about 2 minutes until a homogenous mixture is achieved.
- The entire mixture should be poured into another container and remixed for 2 minutes more to ensure a homogenous mixture.
- Over mixing should be avoided in order to prevent air entrainment.

### Application Method

#### Primer:

- A smooth and continuous primer layer should be ensured. Primer layer can be applied by a roller or brush.

#### Coating:

- Tecnica 342 OP should be spread over the surface by a trowel and finalized with a textured roller to provide final texture.

#### Consumption

- App. 0.5 kg/m<sup>2</sup> for a single layer as a 0.5 - 0.7 mm thick coating.
- App. 0.8 - 1.0 kg/m<sup>2</sup> as a final coat (2 layers) for multi-layer systems.
- Usage and consumption changes depending on the surface properties and system solutions.

#### Post-Application Protection & Suggestions

- Application is not allowed in the areas where rising moisture is existent.
- Primer should not be collected on the surface.
- Tecnica 342 OP is not convenient for permanent water contact until it is coated with a suitable coating.
- Attention should be paid to the temperature, moisture and dew point conditions. Application should not be continued if the temperature decreases, rising temperature during the application or before complete drying can create pinholes on the surface.
- Application should be avoided in excess air current conditions.



- Since Tecnica 342 OP is an epoxy resin based product; properties like drying and curing times, viscosity, pot life may exhibit variations depending on the temperature conditions. These properties decrease at high temperatures and increase with the lower temperatures.
- Tecnica 342 should be applied by professional applicators.
- Surface should be protected against direct water contact for at least 24 hours. Water contact leads coating to lose its properties and it should be removed and reapplied.
- For colour matching the same batch numbered products should be used.
- High load applied to a single point, floor heating systems, high temperatures may create traces on the resin.
- Shelf life is valid for appropriate storage conditions without opening the pails.
- Appropriate working clothes, protecting glasses, gloves and masks should be worn during application.
- For further information refer to the safety data sheet.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- Component A: 17.0 kg containers
- Component B: 3.0 kg containers
- Components A+B: 20 kg ready to mix units

# Tecnica 3400

## PU Based Injection Foam Resin



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance / Colours	Resin : Brownish liquid Catalyst : Transparent liquid	
Shelf Life	6 months in original sealed packaging	
Mixing Ratio (Resin/ Catalyst)	22.5 kg / 2.25 kg	
Density		
Resin	~ 1.20 g/cm <sup>3</sup>	
Catalyst	~ 1.10 g/cm <sup>3</sup>	
Viscosity	450-750 mPa.s	
<b>Application Data</b>		
Application Temperature	+5 °C / +45 °C	
Reaction Temperature	> +5 °C	
Surface Temperature	+5 °C / +35 °C	

### Description

Elastic to highly flexible, solvent-free polyurethane injection resin which is suitable for stopping active water ingress in masonry, concrete and natural stone by reacting with water.

### Fields of Application

- The injection of water-bearing cracks and joints in concrete, masonry and brick,
- Stopping of water inflows from cracks, cold joints, etc.
- Waterproofing of water tanks and swimming pools,
- Stopping the water leakage on tunnel coating concretes and diaphragm walls.

### Properties

- Permanently elastic.
- No shrinkage in subsequent dry conditions.
- Due to its low viscosity it can penetrate into cracks quickly and easily.

### Preparation of Substrates

- Existing injection route has to be bored in a distance of approx. 15-20 cm.
- The boreholes have to be cleaned with oil free pressure air from the dust.
- Place the injection packers at an angle of 45 ° to the crack.

### Application

- Empty component resin and catalyst at the given mixing ratio into a bucket (make sure that the containers are completely empty) and mix homogenously.
- Transfer the mixed material to the 1C pump hopper.
- Inject Tecnica 3400 Inject with the suitable injection equipment.
- Tecnica 3400 Inject reacts quickly with water, creates foam and stop the water immediately.
- Once Tecnica 3400 Inject has cured, remove the packers, clean and close the drill holes with 4004 Tamirart S40 or 4005 Tamirart 40 non-shrinking mortar.

### Post-Application Protection & Suggestions

- PU injection applications should be applied by trained and experienced professionals.
- During the application, the ambient and surface temperature should not be below +5 °C and above +35 °C.
- The reaction speed is influenced by the temperature of the ambient and the building structure, higher temperatures accelerate, lower temperatures slow down the reaction.
- Tecnica 3400 Inject packaging is ready-to-use. During application, solvents should not be added into the mixture.

- If there is not enough water in the area where Tecnica 3400 Inject is applied, injecting water into the surface before or after the injection supports the reaction.
- Clean tools properly and immediately after use and thoroughly with a suitable cleaning agent.

### Storage

- Packages should be kept dry and cool at between +10°C and +35°C in damp free conditions avoiding direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 6 months under above mentioned storage conditions.

### Packaging

- Resin: 22.5 kg container
- Catalyst: 2.25 kg container

# Tecnica 4100

## Epoxy Based Injection Resin



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance / Colours	Yellowish Transparent liquid	
Shelf Life	24 months in original sealed packaging.	
Mixing Ratio (A/B)	10 kg / 5 kg	
Density (25 °C)	~ 1.02 ± 0.02 g/cm <sup>3</sup>	
Shore D	70	
Pot Life (25 °C)	40-50 minutes	
Curing Time	7 days	
<b>Application Data</b>		
Application Temperature	+5 °C / +35 °C	
Reaction Temperature	> +5 °C	
Surface Temperature	+5 °C / +35 °C	
Relative Humidity	Max. 80%	
<b>Performance Data</b>		
Measurement of Bond Strength on Concrete (7days,N/mm <sup>2</sup> ) TS EN 1542	≥ 2.5	
Compressive Strength (7days,N/mm <sup>2</sup> ) TS EN 196	> 60	

### Description

Epoxy based low viscous injection resin with two parts and designed for injection to cracks.

### Fields of Application

- Crack repair in concrete.
- Repair of reinforced concrete, masonry and similar mineral construction materials with injection.

### Properties

- Due to its low viscosity it can penetrate into cracks quickly and easily.
- High mechanical strengths.
- Perfect bonding to the even damp concrete.
- Solvent free.

### Preparation of Substrates

- The concrete surface must be sound, clean and dry. It should be free of frost, curing membranes, waterproofing treatments, oil stains, laitance, friable material and dust.
- Depending on the crack width the holes should be drilled in both two sides of the crack line with an angle of 45° to the surface. Through the crack line, the holes should have a distance of 20-25 cm from each other. The holes should be deep enough for passing across the crack plane and reach opposite side.
- The boreholes have to be cleaned with oil free pressure air from the dust.
- Injection packers should be installed in to the holes than screwed and fixed to the holes.
- All the cracks and packer sides should be sealed with 4101 Tamirart EP.

### Application

- Empty component A and B at the given mixing ratio into a bucket (make sure that the containers are completely empty) and mix homogenously.
- The mixture should be injected within 30 minutes (23°C) after allowing to stand for 2 minutes.
- Transfer the mixed material to the 1C pump hopper and inject Tecnica 4100 Inject with the suitable injection equipment until the pressure in the manometer does not decrease.
- Start pumping the resin from the lowest injection packers until the resin comes out from upper packers.
- Remove the pipe from the current packer and follow the same instruction to the packer fixed at the top of the surface.
- When the resin leaks out from the upper packer it is understood that the whole crack plane has been fully filled with epoxy and finish the application.
- It should be ensured that the injection resin penetrates all the capillary cracks.
- Once Tecnica 4100 Inject has cured, remove the packers, clean and close the drill holes with 4004 Tamirart S40 non-shrinking mortar.
- Consult to Kalekim Technical Service for injection into the cracks on the floor.

### Post-Application Protection & Suggestions

- Epoxy injection applications should be applied by trained and experienced professionals.
- Tecnica 4100 Inject is two-component and should be stored at room temperature for 24 hours before the application.

- During the application, the ambient and surface temperature should not be below +5 °C and above +35 °C.
- The reaction speed is influenced by the temperature of the ambient and the building structure; higher temperatures accelerate, lower temperatures slow down the reaction.
- Tecnica 4100 Inject packaging is ready-to-use. During application, solvents should not be added into the mixture.
- Clean tools properly and immediately after use and thoroughly with a suitable cleaning agent.

### Storage

- Packages should be kept dry and cool at between +10°C and +35°C in damp free conditions avoiding direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 24 months under above mentioned storage conditions.

### Packaging

- Component A: 10 kg container
- Component B: 5 kg container

# Tecnica 911 WP

## Crystalline Based Waterproofing Admixture for Concrete



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance / Colours	White liquid
Shelf Life	24 months when stored in original sealed packaging.
Structure	Inorganic compounds
Mixture Density	1,01 - 1,05 (at +20 °C)
pH	3 - 7

### Description

Tecnica 911 WP is a liquid concrete additive that increases the water impermeability of the concrete by creating a crystalline structure in the capillary spaces of the concrete with the special chemicals structures.

### Fields of Application

- Foundation, basements and water channel,
- Dams, culverts and water reservoirs,
- In swimming pool concretes
- Concrete elements where the high risk of water absorption by capillary suction and
- In all concrete applications where crystallized capillary water impermeability is desired.

### Properties

- Ready to use
- Tecnica 911 WP is added to the concrete during mixing and reduces the permeability of the concrete.
- In contact with water, it forms crystallized structures in the concrete and reduces the permeability of water and other liquids, thus shortening the setting time.
- Water impermeability ensures breathability.
- Does not contain chloride or other harmful substances that will cause reinforcement corrosion.
- Labor and time saving.

### Application

- Shake Tecnica 911 WP well before use.
- Water/cement ratio of the concrete to which Tecnica 911 WP will be added should be less than 0.55.
- If prepared in construction yard; Tecnica 911 WP must be added %1 of cement on ready to apply concrete mixture and stirred 5 minutes.
- If prepared in concrete plant; Tecnica 911 WP is added on water then this mixture is added on concrete mixture as last ingredients.

### Recommended Dosage

- Tecnica 911 WP is added 1% by the weight of cement on the mixture.
- Water/cement ratio should be less than 0.55.

### Post-Application Protection & Suggestions

- The waterproofing admixtures including Tecnica 911 WP, are not effective against water action with a continuous pressure heads. In such cases, the application of external waterproofing techniques is recommended.
- If the application will be done by preparing a mortar with sand (aggregate) addition, the maximum grain size should be 1/3 of the thickness of the finalized coating thickness.
- Waterproofing admixtures are not effective against water action through the microcracks due to shrinkage, durability problems and excessive loading.

- To obtain the best performance, reducing the water to cement ratio of mortar / concrete and taking all measures to reduce microcrack formation due to shrinkage are recommended.
- Do not reuse by adding water on the hardened or hardening mortar.
- All tools and application equipment should be cleaned with plenty of water immediately after use.
- In case of contact with skin, wash with clean water. In case of contact with eye, wash with clean water. Eye contact should be medically consulted immediately.
- For further information refer to the Safety Data sheet.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions.
- Packages should be protected from direct sunlight and freeze.
- Shelf life is maximum 24 months conditional to complying with the above mentioned conditions.

### Packaging

- 30 kg drum
- 1000 kg IBC

# Tecnica 922 WP

## Waterproofing Concrete Admixture With Water Reducing/Plasticising Effect



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance / Colours	Brown liquid
Shelf Life	12 months when stored in original sealed packaging.
Structure	Liquid based on modified lignosulfonate
Mixture Density	1,05 - 1,09 (at +20 °C)
pH	6 - 10

### Description

Tecnica 922 WP is a modified lignosulfonate based concrete admixture that increases the water impermeability of the concrete against water absorption and provides liquidity plasticity to the fresh concrete.

### Fields of Application

- To reduce the low-pressure or unpressurised water permeability of concrete.
- Swimming pool, open channel and tunnel segment constructions
- Concretes designed for wastewater treatment plants, dams, culverts and water reservoirs
- Concrete elements under the high risk of water absorption by capillary suction
- To reduce water ingress in tidal and splash zone of water structures.

### Properties

- It increases impermeability against capillary water absorption compared to admixture-free concrete.
- Improves the durability of concrete.
- Improves the workability without increasing the water content.
- Reduces shrinkage.
- Does not contain chloride or any other substances that may cause corrosion.
- It provides easy settling and pumping of concrete.

### Application

- Tecnica 922 WP should be added to the mixing water or directly added to fresh concrete during mixing. In case of the direct addition to the fresh mixture, additional mixing time should be applied. Tecnica 922 WP should not be added to the dry mixture.
- Tecnica 922 WP is generally compatible with the Portland cement types described in EN 197- 1 and ASTM C150. In addition, it can be used in concrete mixes containing mineral admixtures such as silica fume, fly ash and ground granulated blast furnace slag. However, the presence of mineral admixtures in the mixture is greatly influence the required dosage of the admixture for a specified target. The optimum dosage of Tecnica 922 WP should be determined on trial batches

### Recommended Dosage

- Tecnica 922 WP is 0.5% of the cement weight used.
- It is recommended that the optimum dosage should be determined on trial batches in which the strength development and capillary suction are controlled.
- Overdose may result in excessive increase in setting time and air entrainment. In such a case, the concrete surface should be kept moist and protected from plastic shrinkage cracks as a result of evaporation.

### Post-Application Protection & Suggestions

- There is no known incompatibility with the other type of chemical admixtures. But, it is recommended to experiment test with different types of chemical additives.
- In case of a combined usage with superplasticizers, the superplasticizer dosage should be determined.
- Concrete should be protected from shrinkage and cracks by proper curing and maintenance.
- All tools and application equipment should be cleaned with plenty of water immediately after use.
- In case of contact with skin, wash with clean water. In case of contact with eye, wash with clean water. Eye contact should be medically consulted immediately.
- For further information refer to the safety data sheet

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions.
- Packages should be protected from direct sunlight and freeze.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

### Packaging

- 30 kg drum
- 1000 kg IBC

# Tecnica 923 WP

## Waterproofing Admixture for Mortar and Concrete



### Description

Tecnica 923 WP is a liquid concrete admixture that reduces the water absorption and increases water impermeability of concrete.

### Fields of Application

- In plastered brick wall elements exposed to unpressurized or low pressure water.
- Concretes designed for wastewater treatment plants, dams, culverts and water reservoirs.
- In swimming pool concretes
- Open channels and tunnel segment constructions
- Concrete elements where the high risk of water absorption by capillary suction and to reduce water ingress in tidal and splash zone of water structures.

### Properties

- Ready to use.
- Water impermeability ensures breathability.
- It is added to the concrete mix as a liquid; therefore, it can be used without the risk of agglomeration compared to powder products.
- Does not have a negative effect on the setting and strength of the mortar or concrete.
- Does not contain chloride or any other substances that may cause corrosion.
- Labor and time saving.

### Technical Properties

(at 23°C and 50% RH)

#### General Data

Appearance / Colours	White liquid
Shelf Life	24 months when stored in original sealed packaging.
Structure	Inorganic compounds
Mixture Density	1,015 - 1,055 (at +20 °C)
pH	9 - 13

### Application

- Shake Tecnica 923 WP well before use. It should be mixing with mixer at least 5 minutes before using for IBC.
- Water/cement ratio of the concrete to which Tecnica 923 WP will be added should be less than 0.55.
- If prepared in construction yard; Tecnica 923 WP must be added %2 of cement on ready to apply concrete mixture and stirred 5 minutes.
- If prepared in concrete plant; Tecnica 923 WP is added on water then this mixture is added on concrete mixture as last ingredients.
- Tecnica 923 WP must be added into the concrete as the ratio of 2 %.

### Recommended Dosage

- Recommended dosage is 2% of cement weight.
- Water/cement ratio should be less than 0.55.

### Post-Application Protection & Suggestions

- The waterproofing admixtures including Tecnica 923 WP, are not effective against water action with a continuous pressure heads. In such cases, the application of external waterproofing techniques is recommended.
- Waterproofing admixtures are not effective against water action through the microcracks due to shrinkage, durability problems and excessive loading

- To obtain the best performance, reducing the water to cement ratio of mortar / concrete and taking all measures to reduce microcrack formation due to shrinkage are recommended.
- Do not reuse by adding water on the hardened or hardening mortar.
- All tools and application equipment should be cleaned with plenty of water immediately after use.
- In case of contact with skin, wash with clean water. In case of contact with eye, wash with clean water. Eye contact should be medically consulted immediately.
- For further information refer to the safety data sheet.

### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions.
- Packages should be protected from direct sunlight and freeze.
- Shelf life is maximum 24 months conditional to complying with the above mentioned conditions.

### Packaging

- 30 kg drum
- 1000 kg IBC



# Saving is in its Chemistry!

*Solution, comfort, economy!*

## Thermal Insulation Applications

- 243 KALEKİM WHITE EPS THERMAL INSULATION BOARD
- 244 KALEKİM CARBON EPS THERMAL INSULATION BOARD
- 245 KALEKİM STONE WOOL THERMAL INSULATION BOARD
- 246 FOAMTECH
- 247 MANTOTECH
- 248 FOAMPLAST
- 249 MANTOPLAST
- 250 MANTOMIX
- 251 MANTOSTONE
- 252 MİNART SILVER 100
- 253 MİNART SILVER 150
- 254 MİNART SILVER 200
- 255 MİNART SILVER 300
- 256 MİNART DEKOR 300
- 257 MİNART PRO 300
- 259 THERMAL INSULATION TECHNICAL INFORMATIONS



## Thermal Insulation in Buildings

Thermal insulation is the process of reducing the heat transfer between the surfaces using special materials in order to prevent the cold air in the exterior environment from causing temperature loss in the interior environments in winter months, and hot air in the exterior environment from causing temperature increase in the interior environments in summer months.

In order to balance the temperature in our houses, we try to increase the temperature using fuels like natural gas and coal in winter, and decrease the temperature using air conditioners or similar cooling appliances in summer. We consume a certain amount of energy during all these heating and cooling processes. Unfortunately, more than half of the energy,

which is used for heating purposes in buildings, is lost when there is no thermal insulation.

Thermal insulation is the heat loss that occurs in sections of buildings like columns, beams, walls and marble under windows. Thermal bridges existing in our buildings causes a significant amount of loss in the energy we spend by conducting heat transfer from exterior environment. Thermal Insulation prevents heat transfer from exterior environment by eliminating thermal bridges, thus provides energy saving by allowing for the most efficient use of the energy we spend. Our world is facing global warming threat due to gas effect that emerges with the consumption of resources like petroleum and coal. Season changes are experienced as a

result of that effect. Maximum energy efficiency is one of the issues on which the scientists study most against this phenomenon that threatens the future of humankind. Thermal Insulation not only is a precaution against global warming by providing more than 50 percent energy saving and reducing the consumption of the resources like petroleum and coal that are consumed for heating purposes but also contributes to the national economy and protection of the environment.

In other words, Thermal Insulation means providing maximum saving and comfort in buildings.

value input in the lives of the building occupants. We can list the comfort factors provided by Thermal Insulation as follows:

- It provides a healthy living environment by preventing formation of humidity, mold and fungus that affect life comfort in buildings,
- It provides protection of building's load bearing elements against negative effects like corrosion, flaking and swelling by enveloping the building from the outside,

— Temperature difference between the environments in the building must be 3°C maximum. Thermal Insulation increases the environmental comfort by ensuring that heat in the building is distributed homogenously everywhere,

— It renders effective the physical and mental activities of the people living in the environment by ensuring the optimum use of the building and residences,

— It contributes to the national economy and family budget by energy saving.

## Benefits of Thermal Insulation

A thermal insulation that is performed in accordance with the "Regulation on Thermal Insulation in Buildings" issued by the Ministry of Public Works and Settlement provides 50% saving on the expenses made for heating and cooling purposes in buildings, and contributes to comfortable life with an efficient heating in winter and an efficient cooling in summer.

It contributes to the combat against greenhouse effect, global warming and climate change by reducing the emission of carbon dioxide (CO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>) and other harmful gases to

the atmosphere thanks to maximum benefit it provides in the use of energy.

It provides comfortable life in thermal insulated buildings by preventing the formation of humidity and mold.

Thermal insulation prevents corrosion (rusting) since no humidity will occur in thermal insulated buildings. Thus, it increases the earthquake safety by protecting the carrier elements of the building, and it prolongs the building life.

It contributes to the comfortable life and health of occupants in thermal insulated buildings since the heat distribution between the places will be homogenous.

Thermal insulation makes an important contribution to sound insulation since it absorbs the noise coming from the exterior environment.

Among the investments made on buildings, it can be asserted that Thermal Insulation is the one that pay off itself in the shortest time. Moreover, it starts a transformation process that is a plus

## Thermal Insulation and Environment

Protecting the environment by thermal insulation can be considered as leaving a liveable environment for future generations. The most basic indication of protecting our natural environment is to take effective measures against global warming caused by greenhouse effect, and prevent pollution in the nature and atmosphere.

Greenhouse gases, which come off as a result of using fossil fuels for heating and cooling purposes, cause temperature increase in our world. Carbon dioxide (CO<sub>2</sub>) is the most

polluting gas in the atmosphere. The increasing amount of CO<sub>2</sub> in the atmosphere triggers the global warming.

Potential threats, which will be faced by humankind due to climate changes caused by the global warming, can be listed as follows:

— Threat against the future of animal and plant species due to the fact that disturbed natural balance causes great destruction in the ecological system,

— Mass famine and epidemics with the fact that drought and desertification increasingly have effects on larger areas,

— Sulfur dioxide (SO<sub>2</sub>) gas causes a significant destruction on forestlands and acid rains by combining with water vapor.

Thermal insulation, which is performed in accordance with the related rules, is one of the most effective tools in combating against greenhouses gases like carbon dioxide and sulfur dioxide that have the most destructive effect on the nature.



## Thermal Insulation and Energy Saving

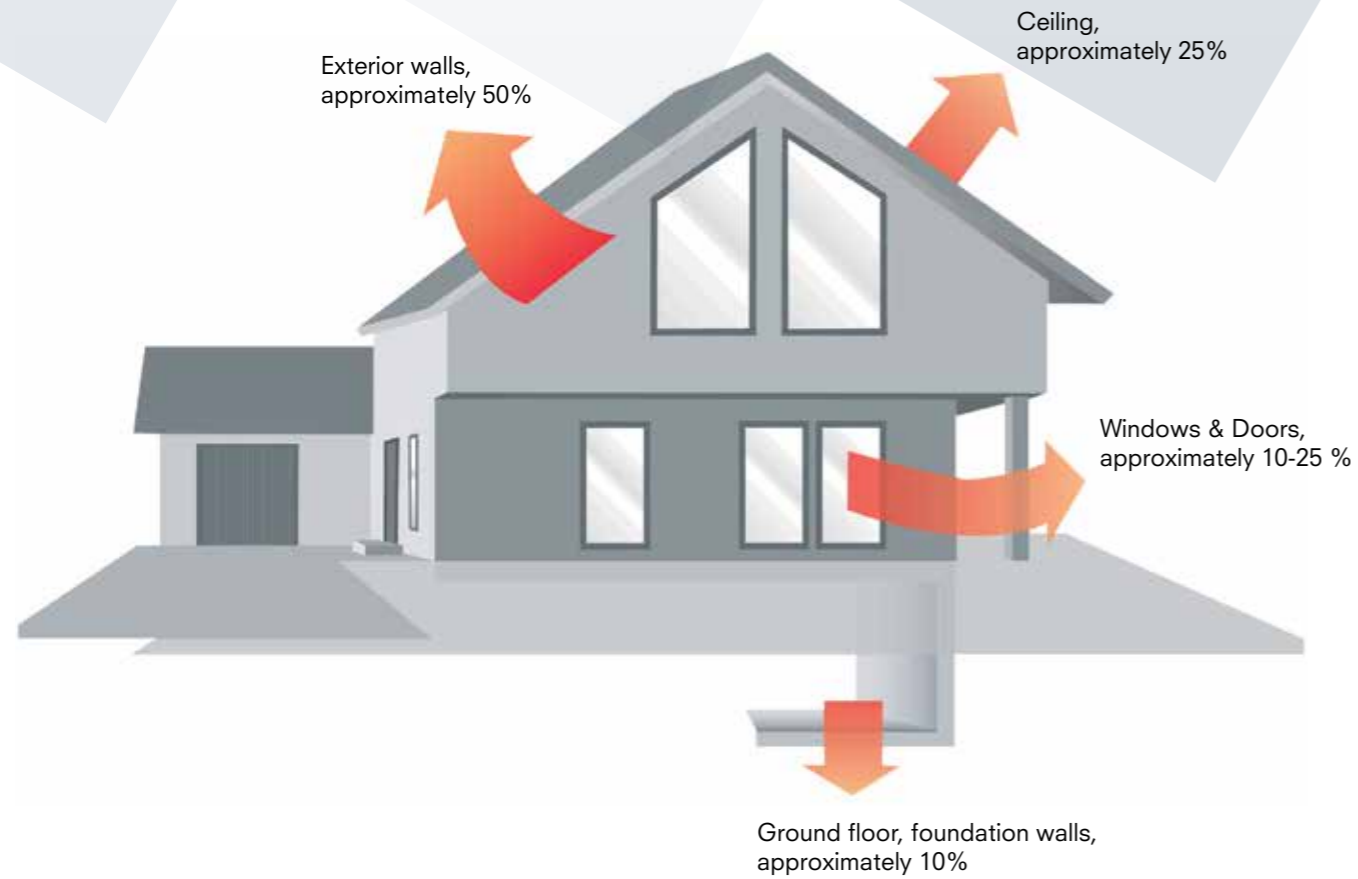
Turkey enjoys all four seasons due to its climate and geographical position. While this gift of nature brings various benefits, it also creates an increase in energy consumption and also in heating costs in winter, and cooling costs in summer. While energy sources are diminishing day by day all around the world, consumption need grows much bigger.

In buildings, 50% of heat loss occurs in exterior walls, 25% in ceilings, 20% in windows and doors, 10% in ground floor and foundation walls. Energy saving gains a particular importance under these conditions. Thermal Insulation stands

out as one of the most successful energy saving tools apart from its other benefits. Development of saving awareness and saving skill has become a necessity for all economies as well as families in view of the increasing costs. Therefore, Regulation on Energy Performance in Buildings was put into practice, and implementation of forming Energy Identity in Buildings started.

Thermal bridges, which cause heat loss, are completely removed since thermally insulated buildings are insulated all around from the exterior environment. Energy consumed for heating and cooling is utilized in the most

effective way since heat exchange with the exterior air is prevented. Energy saving provided by Thermal Insulation made possible to use energy and sources more effectively by decreasing your heating and cooling expenses 50 percent.



## Fire Insulation



The fact that fire safety holds a vital importance in buildings is a reality known by everyone. However, it is a matter of discussion how well the fire insulation is performed compliant with this reality. Insurance companies check whether or not a building has fire insulation when calculating the premium payments for the building. Fire insulation must be performed using Class A1 fireproof materials that prevent flames from spreading during fire and that are compliant with EN 13501-1 standard.

Melting point of Stone Wool is over 1000°C. Therefore, Stone Wool is included in the category of fireproof construction materials in accordance with the construction materials standards. Stone Wool is classified as Class A1 pursuant to ISO 1182, which is the highest fire resistance category, thanks to its perfect fire resistance and high heat resistance.

Stone Wool stands out as a unique material in thermal and sound insulation as well as being a superior construction material with perfect fire resistance.

## Sound Insulation



Today, noise is an important environmental pollution component that causes physiological and psychological disorders. It is everyone's right to rest in home environment away from the exterior noise, and rejuvenate both physically and mentally. Moreover, it is a known fact that working under minimum noise in offices and workplaces positively affects the performance of all employees. Exposure to excessive noise causes disturbances like angeriness, perception loss, ineffectiveness and hearing loss.

The precondition of protection against the negative effects of noise is to have sound insulation. Sound insulation must be performed compliant with the rules using correct materials. Kale Stone Wool products provide excellent sound insulation thanks to their open porosity, sound absorbance and acoustic feature. Kale Stone Wool's short and intermeshing fibrous texture is the guarantee for the most successful sound insulation as well as excellent thermal insulation. Kale Stone Wool products provide healthful spaces by insulating them from the negative effects of noise pollution.

## Efficiency of the Thermal Insulation System on Buildings

### Efficiency of the Thermal Insulation System Depends on All Components of the System...

Kale Thermal Insulation Boards (Stone Wool - EPS), Kale Mantotech and Kale Foamtech Thermal Insulation Board Adhesive Mortars; Kale Mantoplast and Kale Foamplast Thermal Insulation Board Plaster Mortar; Kale Mantoplast and Kale Foamplast Thermal Insulation Board Adhesive and Plaster Mortars; Kale Mantomix Adhesive and Plaster Mortar, Kale Mantastone Stone Wool Adhesive and Plaster Mortar; Kale Reinforcement Mesh, Kale Anchor and Kale Meshed PVC Corner Profile manufactured by Kalekim are collectively put on market as package system components under the Kale Thermal Insulation Systems brand. Kale brand Exterior Facade Plaster and Paints, which set the fashion of the exterior facades on the topcoat coatings, are included as the system components in the package system.

The performance of the system as a whole is important in thermal insulation. Moreover; components, which constitute the system,

must have CE certificates and comply with the Construction Materials Regulation. It is only when each system component meets the quality criteria and complies with the regulations that success can be achieved in the performance of the entire thermal insulation system.

Kale brand exterior facade paints and decorative ready mixed plasters, which are used in the Thermal Insulation Systems, do not allow water into the system thanks to their silicone structure. Furthermore; all our topcoat coatings, which we recommend for Thermal Insulation Systems, allow the system to breathe and provide full protection against humidity thanks to their water based feature.

One of the most important things for a successful Thermal Insulation application is that the application must be performed by preferring a package system. All products offered with Thermal Insulation Boards in Kale

Thermal Insulation System not only have the quality and assurance of Kale brand, but also are the outcome of Kalekim's 41-year experience in the sector. Kale Thermal Insulation System components guarantee the system success by offering together the harmony, quality and assurance.

Success of Thermal Insulation System is also directly related with the competence and mastery of the team that performs the application. We recommend you to prefer our expert masters, who took their licenses approved by the Ministry of National Education after successfully completing Kalekim Master Orientation and Improvement Course, or to request expert masters from Kalekim's Familiar Master Recommendation System.

For detailed information and Familiar Master requests, call our Call Center on 444 5253.

## Kalekim White EPS Thermal Insulation Board



Technical Properties	(at 23°C and 50% RH)
Standart	TS EN 13163
Thermal Conductivity Value	≤ 0.038 W/mK
Fire Resistance	According to EN 13501-1 Class E
Density	16 kg/m <sup>3</sup>
Dimensional Consistency	± % 0.2 DS (N) 2
Compression Resistance (min.) (10% deformation)	CS (10) 60
Tensile Strength Perpendicular to The Surface	TR100
Long Term Water Absorption Under Total Immersion	WL (T) 5
Vapour Diffusion Resistance Coefficient (μ)	20-40
Flexural Strength	≥ 115 kPa
<b>Dimensions</b>	
Length	1.000 mm
Width	500 mm
Thickness	20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120 mm



### Description

Kalekim White EPS thermal insulation board is a White EPS Thermal Insulation Board that is manufactured out of Expanded Polystyrene.

### Fields of Application

- Thermal insulation on exterior and interior walls of buildings.
- It is used for sheathing within thermal insulation systems.

### Properties

- Thermal insulation on exterior and interior walls of buildings.
- Dry and still air is trapped within the innumerable number of small closed porous cells in its structure (3-6 billions depending on EPS density in 1 m<sup>3</sup>). The material is very light as 98% of it is air, and it doesn't bring additional loads to structures.

- Light and easy-to-apply.
- Environment-friendly.
- 100% recyclable and no polluting waste.
- Fixed thickness, doesn't get thinner over time.
- Maintains its insulation property.
- Infinite lasting.

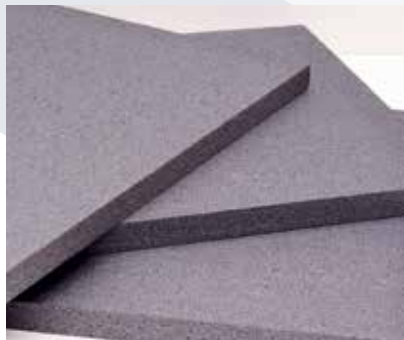
### Storage

- Packages should be stored in a cool and ventilated environment.
- Protect from water and sunlight when storing outdoors.
- Don't expose to heat.
- Stock in an inclined way to prevent accumulation and penetration of rainwater.

### Packaging

- 2 cm package 12.5 m<sup>2</sup>
- 3 cm package 8 m<sup>2</sup>
- 4 cm package 6 m<sup>2</sup>
- 5 cm package 5 m<sup>2</sup>
- 6 cm package 4 m<sup>2</sup>
- 7 cm package 3.5 m<sup>2</sup>
- 8 cm package 3 m<sup>2</sup>

# Kalekim Carbon EPS Thermal Insulation Board



Technical Properties		(at 23°C and 50% RH)
Standart	TS EN 13163	
Thermal Conductivity Value	≤ 0.032 W/mK	
Fire Resistance	According to EN 13501-1 Class E	
Density	16 kg/m³	
Dimensional Consistency	± % 0.2 DS (N) 2	
Compression Resistance (min.) (10% deformation)	CS (10) 60	
Tensile Strength Perpendicular to The Surface	TR100	
Long Term Water Absorption Under Total Immersion	WL (T) 5	
Vapour Diffusion Resistance Coefficient (μ)	20-40	
Flexural Strength	≥ 115 kPa	
Dimensions		
Length	1.000 mm	
Width	500 mm	
Thickness	20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120 mm	

### Description

Kalekim Carbon EPS thermal insulation board is a gray EPS Thermal Insulation Board that is manufactured out of Expanded Polystyrene.

### Fields of Application

- Thermal insulation on exterior and interior walls of buildings.
- It is used for sheathing within thermal insulation systems.

### Properties

- Due to its graphite content, prevents thermal energy radiation. Therefore, it provides better thermal insulation compared to EPS Thermal Insulation Boards.
- Dry and still air is trapped within the innumerable number of small closed porous cells in its structure (3-6 billions depending on EPS density in 1 m²). The material is very light as 98% of it is air, and it doesn't bring additional loads to structures.

- Light, easy-to-apply and easy-to-handle.
- Environment-friendly. 100% recyclable and no polluting waste.
- Useable in interior and exterior walls.
- Fixed thickness, doesn't get thinner over time.
- Maintains its insulation property.
- Infinite lasting.

### Storage

- Packages should be stored in a cool and ventilated environment.
- Protect from water and sunlight when storing outdoors.
- Don't expose to heat.
- Stock in an inclined way to prevent accumulation and penetration of rainwater.

### Packaging

- 2 cm package 12.5 m²
- 3 cm package 8 m²
- 4 cm package 6 m²
- 5 cm package 5 m²
- 6 cm package 4 m²
- 7 cm package 3.5 m²
- 8 cm package 3 m²



# Kalekim Stone Wool Thermal Insulation Board



Technical Properties		(at 23°C and 50% RH)
Standart	TS EN 13162	
Thermal Conductivity Value	≤ 0.039 W/mK	
Fire Resistance	According to EN 13501-1 Class A1	
Density	150 kg/m³	
Thickness Tolerance Range	T4-3+5 mm	
Compression Resistance (min.) (10% deformation)	CS (10) 50	
Tensile Strength	TR15 ≥ kPa	
Long Term Water Absorption Under Total Immersion	WL (P) ≤ 3 kg/m²	
Vapour Diffusion Resistance Coefficient (μ)	μ 1	
Melting Point	T1 > 1000°C	
Dimensions		
Length	1.200 mm	
Width	600 mm	
Thickness	30, 40, 50, 60, 70, 80, 90, 100, 110, 120 mm	

### Description

Kalekim Stone Wool Thermal Insulation Board is built by melting locally procured basalt, an inorganic material, at 1350 °C -1400 °C and turning it into fibers to provide thermal, sound and fire insulation.

### Fields of Application

- Thermal insulation on exterior and interior walls of buildings.
- It is used for sheathing within thermal insulation systems.

### Properties

- Contains no harmful gases.
- Maintains its insulation property.
- High vapor permeability; Buildings breathe preventing mold growth.
- 5-10 dB sound insulation due to its fibrous structure.
- No thermal expansion; dimensional stability.

- No heat build-up at assembly points; no loss of energy.
- Class A1 fireproof material.
- Water-repellant; repels water thanks to its fibrous nature and vaporizes the water inside due to its breathing nature.

### Storage

- Packages should be stored in a cool and ventilated environment.
- Protect from water and sunlight when storing outdoors.
- Don't expose to heat.
- Stock in an inclined way to prevent accumulation and penetration of rainwater.

### Packaging

- 3 cm package 5.76 m²
- 4 cm package 4.32 m²
- 5 cm package 3.60 m²
- 6 cm package 2.88 m²
- 8 cm package 2.16 m²
- 10 cm package 1.44 m²
- 12 cm package 1.44 m²



## 1057 Foamtech

### Insulation Board Adhesive



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Colour	Grey powder
Shelf Life	12 months in the original sealed packaging in dry place.
Application Tools	Notched trowel, trowel
<b>Application Data</b>	
Application Temperature Range	(+5°C)-(+35°C)
Pot life	3 hours
Mixing Ratio	5.5 - 6 lt water / 25 kg powder
Consumption	4-5 kg/m <sup>2</sup>
<b>Performance Data</b>	
Adhesion to the Thermal Insulation Board	Min. 0.08 N/mm <sup>2</sup>
Water Absorption	30 dk. max. 5 gr / 240 dk. max. 10 gr
Flexural Strength (EN 1015-11)	Min. 2 N/mm <sup>2</sup>
Compressive Strength (EN 1015-11)	Min. 6 N/mm <sup>2</sup>
Adhesive Strength of Hardened Rendering and Plastering Mortars (EN 1015-12)	Min. 0.5 N/mm <sup>2</sup>

#### Description

Cement-based thermal insulation board adhesive.

#### Fields of Application

• Interior and exterior walls of all buildings; adhesion of XPS, EPS and Stone Wool thermal insulation boards.

#### Properties

- Specially designed for thermal insulation systems and offers high adhesion strength.
- Easy-to-apply.
- Extended open time.

#### Preparation of Substrates

- Substrates must be sound, free from oil, grease, and sufficiently dry. Remove any residue which may prevent adhesion
- Cracked plasters mortar and cement residues must be scraped off the surface.
- Use Tamirart in case of uneven substrates to get a sound and flat surface.

#### Application

- Pour Foamtech on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. Allow the mortar to stand for 5-10 minutes to mature and remix it before the application.
- If there are level differences on the surface, apply mortar to the whole back-side edges of the board, apply in dots at the middle section and press to the wall.
- If the surface is even, you can apply adhesive mortar by raking method.
- Check the level of boards with a float or a water gauge.

#### Post-Application Protection & Suggestions

- Consume the prepared mortar within 3 hours.
- Fix mechanically after 24 hours at minimum depending on the environment temperature and surface properties.
- Should be used within shelf life. If shelf life has expired, it should not be used during application.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.

- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- 25 kg multi-ply paper bags.



TS 13566 / June 2013

## 1169 Mantotech

### Insulation Board Adhesive



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Colour	Grey powder
Shelf Life	12 months in the original sealed packaging in dry place.
Application Tools	Notched trowel, trowel
Packaging	25 kg multi-ply paper bag
<b>Application Data</b>	
Application Temperature Range	(+5°C)-(+35°C)
Pot life	3 hours
Mixing Ratio	5.5 - 6 lt water / 25 kg powder
Consumption	4-5 kg/m <sup>2</sup>
<b>Performance Data</b>	
Adhesion to the Thermal Insulation Board (EN 13494)	Min. 0.10 N/mm <sup>2</sup>
Water Absorption (EN 12808-5)	30 dk. max. 5 gr / 240 dk. max. 10 gr
Flexural Strength (EN 1015-11)	Min. 2 N/mm <sup>2</sup>
Compressive Strength (EN 1015-11)	Min. 6 N/mm <sup>2</sup>
Adhesive Strength of Hardened Rendering and Plastering Mortars (EN 1015-12)	Min. 0.7 N/mm <sup>2</sup>

#### Description

Cement-based thermal insulation board adhesive.

#### Fields of Application

• Interior and exterior walls of all buildings; adhesion of XPS, EPS and Stone Wool thermal insulation boards.

#### Properties

- Specially designed for thermal insulation systems and offers high adhesion strength.
- Easy-to-apply with its superior application and grounding properties.
- Extended open time.

#### Preparation of Substrates

- Substrates must be sound and cured.
- Remove any residue which may prevent adhesion.
- Cracked plasters mortar and cement residues must be scraped off the surface.
- Use Tamirart in case of uneven substrates to get a sound and flat surface.

#### Application

- Pour 25 kg of powder into 5.5 - 6 lt of water slowly and mix to obtain a homogenous mortar free from lumps. Allow the mortar to stand for 5-10 minutes to mature and remix it before the application.

- If there are level differences on the surface, apply mortar to the whole back-side edges of the board, apply in dots at the middle section and press to the wall.
- If the surface is even, you can apply adhesive mortar by raking method.
- Check the level of boards with a float or a water gauge.

#### Post-Application Protection & Suggestions

- Consume the prepared mortar within 3 hours. Dispose of the mortar which has exceeded its pot life.
- Fix mechanically after 24 hours at minimum depending on the environment temperature and surface properties.
- Mantotech should be used within shelf life. Products which have completed their shelf life should not be used during application.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- 25 kg multi-ply paper bags.



TS 13566 / June 2013

## 4057 Foamplast

### Cement - Based Insulation Board Plaster



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	Grey powder
Shelf Life	12 months in the original sealed packaging in dry place.
Application Tools	Steel trowel
Packaging	25 kg multi-ply paper bag
<b>Application Data</b>	
Application Temperature Range	(+5°C)-(+35°C)
Pot life	3 hours
Mixing Ratio	6 - 6.5 lt water / 25 kg powder
Consumption	1.7 kg/m <sup>2</sup> /mm
<b>Performance Data</b>	
Flexibility	High
Adhesion to the Thermal Insulation Board (EN 13494)	Min. 0.08 N/mm <sup>2</sup>
Water Absorption (EN 1015-18)	≤ 0.40 kg/m <sup>2</sup> dk <sup>0.5</sup> W2
Flexural Strength (EN 1015-11)	Min. 2 N/mm <sup>2</sup>
Compressive Strength (EN 1015-11)	Min. 6 N/mm <sup>2</sup>
Water Vapor Permeability Coefficient (μ) (EN 1015-19)	Max. 15

#### Description

Cement-based thermal insulation board plaster.

#### Fields of Application

• Interior and exterior walls of all buildings; adhesion of XPS, EPS and Stone Wool thermal insulation boards.

#### Properties

- Interior and exterior wall
- Specially designed for thermal insulation systems, and offers high flexibility and bonding strength.
- Excellent adhesion to thermal insulation panel.
- Resistant to weather, water and impact.

#### Preparation of Substrates

- Surfaces of the thermal insulation board should be fixed properly and firmly, their surfaces are dust-free and clean.
- There should be no gaps between the thermal insulation boards.

#### Application

• Pour Foamplast on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. Allow the mortar to stand for 5-10 minutes to mature and remix it before the application.

- Apply the mortar on the boards using a steel trowel. Notch the first coat of plaster with a 4x4mm tooth thickness notched trowel for homogenous thickness. Gently press and fit in reinforcement mesh using a steel trowel before the plaster mortar dries.
- Apply 10 cm overlaps at the joints of the reinforcement mesh.
- Apply the 2nd coat before the 1st coat of plaster slightly drips water.
- Smoothen the surface with a steel trowel after the 2nd coat.

#### Post-Application Protection & Suggestions

- Consume the prepared mortar within 3 hours. Dispose of the mortar which has exceeded its pot life. Apply breathing top coat material after the plaster mortar is completely dry.
- Foamplast should be used within shelf life. During the application, products that have completed their shelf life should never be used.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- 25 kg multi-ply paper bags.



## 4169 Mantoplast

### Insulation Board Plaster



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Colour	Grey powder
Shelf Life	12 months in the original sealed packaging in dry place.
Packaging	25 kg multi-ply paper bag
<b>Application Data</b>	
Application Temperature Range	(+5°C)-(+35°C)
Applications Tools	Steel trowel
Pot life	3 hours
Mixing Ratio	6 - 6.5 lt water / 25 kg powder
Consumption	1.7 kg/m <sup>2</sup> /mm
<b>Performance Data</b>	
Flexibility	High
Adhesion to the Thermal Insulation Board (EN 13494)	Min. 0.10 N/mm <sup>2</sup>
Water Absorption (EN 12808-5)	≤ 0.20 kg/m <sup>2</sup> dk <sup>0.5</sup> W2
Flexural Strength (EN 1015-11)	Min. 2 N/mm <sup>2</sup>
Compressive Strength (EN 1015-11)	Min. 10 N/mm <sup>2</sup>
Water Vapor Permeability Coefficient	Max. 15

#### Description

Cement-based thermal insulation board plaster.

#### Fields of Application

• Interior and exterior walls of all buildings; adhesion of XPS, EPS and Stone Wool thermal insulation boards.

#### Properties

- Interior and exterior wall
- Specially designed for thermal insulation systems, and offers high flexibility and bonding strength.
- Resistant to weather, water and impact.

#### Preparation of Substrates

- Surfaces of the thermal insulation board must be clean and free from dust.
- There should be no gaps between the thermal insulation boards.

#### Application

- Pour Mantoplast on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix.
- Allow to stand for 5-10 minutes to mature. After remixing the paste is ready for application.

- Apply the mortar on the boards using a steel trowel. Notch the first coat of plaster with a 4x4 mm tooth thickness notched trowel for homogenous thickness. Gently press and fit in reinforcement mesh using a steel trowel before the plaster mortar dries.
- Apply in 10 cm overlaps at the joints of reinforcement mesh.
- Apply the 2nd coat before the 1st coat of plaster slightly drips water.
- Smoothen the surface with a steel trowel after the 2nd coat.

#### Post-Application Protection & Suggestions

- Consume the prepared mortar within 3 hours. Dispose of the mortar which has exceeded its pot life.
- Should be used within shelf life. If shelf life have expired should not be used during application.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- 25 kg multi-ply paper bags.



## 3601 Mantomix

### Insulation Board Adhesive and Plaster



#### Description

Cement-based thermal insulation board adhesive and general-purpose interior/exterior plaster.

#### Fields of Application

- Interior and exterior walls of all buildings; adhesion of XPS, EPS and Stone Wool thermal insulation boards.

#### Properties

- Specially designed for thermal insulation systems, and offers high adhesion strength.
- High flexibility and bonding strength.
- Can be used both as adhesive and plastering mortar.
- Resistant to weather, water and impact.

#### Preparation of Substrates

- Substrates must be sound and cured. Remove any residue which may prevent adhesion.
- The surfaces to be applied should be free of adhesive preventive foreign substances such as dust, dirt, mould oil, paint etc.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.
- Use Tamirart in case of uneven substrates to get a sound and flat surface.
- Surfaces of the thermal insulation board should be fixed properly and firmly, their surfaces are dust-free and clean.
- There should be no gaps between the thermal insulation boards.

#### Application (Adhesive)

- Pour 25 kg of powder into 6.0 – 6.5 lt of water slowly and mix to obtain a homogenous mortar free from lumps. Allow the mortar to stand for 5 - 10 minutes to mature and remix it before the application.
- If there are level differences on the surface, apply mortar to the whole back-side edges of the board, apply in dots at the middle section and press to the wall.
- If the surface is even, you can apply adhesive mortar by raking method.
- Check the level of boards with a float or a water gauge.
- Consume the prepared mortar within 3 hours. Dispose of the mortar which has exceeded its pot life.
- Fix mechanically after 24 hours at minimum depending on the environment temperature and surface properties.

Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Colour	Gray-White Powder	
Shelf Life	12 months in the original sealed packaging in dry place.	
Packaging	25 kg multi-ply paper bag	
<b>Application Data</b>		
Application Temperature Range	(+5°C)-(+35°C)	
Applications Tools	Steel trowel	
Pot life	3 hours	
Mixing Ratio	6- 6.5 lt water / 25 kg powder	
Consumption	4-5 kg/m <sup>2</sup>	
<b>Performance Data</b>		
	<b>EN 998-1</b>	<b>TS 13566</b>
Adhesion to the Thermal Insulation Board(EN 13494)	—	Min 0,08 N/mm <sup>2</sup>
Water Absorption (EN 1015-18)	≤ 0,40 kg/m <sup>2</sup> dk <sup>0.5</sup> W2	—
Water Absorption (EN 12808-5)	—	30 dk. Max. 5 gr 240 dk max 10 gr
Compressive Strength (EN 1015-11)	≥ 6 N/mm <sup>2</sup> CS IV	6 N/mm <sup>2</sup>
Bonding Strength - Type of Break (EN 1015-12)	≥ 0,50 N/mm <sup>2</sup> - B	≥ 0,5 N/mm <sup>2</sup> - B
Bulk Density of Hardened Mortar (EN 1015-10)	≤ 1400 ± 200 kg/m <sup>3</sup>	—
Water Vapor Permeability Coefficient (μ) (EN 1745)	≤ 15	—
Water Vapor Permeability Coefficient (μ)	—	—
Flexural Strength (EN 1015-11)	—	Min. 2 N/mm <sup>2</sup>
Thermal Conductivity (EN 1745)	0,61 W/mK (Table Value) (P=50%)	—
Reaction to Fire (EN 13501-1)	A1	A1
Temperature Resistance	(-30°C) - (+80°C)	(-30°C) - (+80°C)
Dangerous Substances	Complies	Complies

#### Application (Plaster)

- Pour 25 kg of powder into 6 – 6.5 lt of water slowly and mix to obtain a homogenous mortar free from lumps. Allow the mortar to stand for 5-10 minutes to mature and remix it before the application.
- Apply the mortar on the boards using a steel trowel. Notch the first coat of plaster with a 4x4mm tooth thickness notched trowel for homogenous thickness. Gently press and fit in reinforcement mesh using a steel trowel before the plaster mortar dries.
- Apply 10 cm overlaps at the joints of the reinforcement mesh.
- Apply the 2nd coat before the 1st coat of plaster slightly drips water.
- Smoothen the surface with a steel trowel after the 2nd coat.
- Consume the prepared mortar within 3 hours. Dispose of the mortar which has exceeded its pot life. Apply breathing top coat material after the plaster mortar is completely dry.

#### Post-Application Protection & Suggestions

- Mantomix should be used within shelf life. During the application, products that have completed their shelf life should never be used.

- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- 25 kg multi-ply paper bags.



## 3602 Mantostone

### Light-Weight Adhesive and Plaster for Insulation Boards



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Colour	Gray-White Powder	
Shelf Life	12 months in the original sealed packaging in dry place.	
Packaging	15 kg multi-ply paper bag	
<b>Application Data</b>		
Application Temperature Range	(+5°C)-(+35°C)	
Applications Tools	Steel trowel	
Pot life	3 hours	
Mixing Ratio	5.5- 6.5 lt water / 15 kg powder	
Consumption	2.5-3 kg/m <sup>2</sup>	
<b>Performance Data</b>		
	<b>EN 998-1</b>	<b>TS 13566</b>
Adhesion to the Thermal Insulation Board(EN 13494)	—	Min 0,08 N/mm <sup>2</sup>
Water Absorption (EN 1015-18)	≤ 0,20 kg/m <sup>2</sup> dk <sup>0.5</sup> W2	—
Water Absorption (EN 12808-5)	—	30 dk. Max. 5 gr 240 dk max 10 gr
Compressive Strength (EN 1015-11)	≥ 6 N/mm <sup>2</sup> CS IV	6 N/mm <sup>2</sup>
Bonding Strength - Type of Break (EN 1015-12)	≥ 0,50 N/mm <sup>2</sup> - B	≥ 0,5 N/mm <sup>2</sup> - B
Bulk Density of Hardened Mortar (EN 1015-10)	≤ 1300 kg/m <sup>3</sup> LW	—
Water Vapor Permeability Coefficient (μ) (EN 1745)	≤ 15	—
Water Vapor Permeability Coefficient (μ)	—	—
Flexural Strength (EN 1015-11)	—	Min. 2 N/mm <sup>2</sup>
Thermal Conductivity (EN 1745)	0,33 W/mK (Table Value) (P=50%)	—
Reaction to Fire (EN 13501-1)	A1	A1
Temperature Resistance	(-30°C) - (+80°C)	(-30°C) - (+80°C)
Dangerous Substances	See SDS	See SDS

#### Description

Light adhesion and plaster mortar specially designed for stone wool thermal insulation systems.

#### Fields of Application

- Interior and exterior walls of all buildings; adhesion of XPS, EPS and Stone Wool thermal insulation boards.

#### Properties

- 40% lighter adhesive and plaster mortar
- 40% lower water absorption.
- Lightens the thermal insulation system by 25%.
- Light, easy-to-apply and more practical.

#### Preparation of Substrates

- Substrates must be sound and cured. Remove any residue which may prevent adhesion.
- The surfaces to be applied should be free of adhesive preventive foreign substances such as dust, dirt, mould oil, paint etc.
- The sub-surfaces that are not strong enough to carry themselves e.g. cracked plasters, weak surfaces, or residues of moss should be cleaned from the application surface.
- Use Tamirart in case of uneven substrates to get a sound and flat surface.

- Surfaces of the thermal insulation board should be fixed properly and firmly, their surfaces are dust-free and clean.
- There should be no gaps between the thermal insulation boards.

#### Application (Adhesive)

- Pour Mantostone on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. Allow the mortar to stand for 5-10 minutes to mature and remix it before the application.
- If there are level differences on the surface, apply mortar to the whole back-side edges of the board, apply in dots at the middle section and press to the wall.
- If the surface is even, you can apply adhesive mortar by raking method.
- Check the level of boards with a float or a water gauge.
- Consume the prepared mortar within 3 hours. Dispose of the mortar which has exceeded its pot life.
- Fix mechanically after 24 hours at minimum depending on the environment temperature and surface properties.

#### Application (Plaster)

- Pour Mantostone on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. Allow the mortar to stand for 5-10 minutes to mature and remix it before the application.

**%40**  
LIGHTER  
ADHESIVE  
AND PLASTER

**%40**  
LOWER  
WATER  
ABSORPTION

**%25**  
LIGHTER  
INSULATION  
SYSTEM

EASITTO APPLY  
AND MORE  
PRACTICAL

- Apply the mortar on the boards using a steel trowel. Notch the first coat of plaster with a 4x4 mm tooth thickness notched trowel for homogenous thickness. Gently press and fit in reinforcement mesh using a steel trowel before the plaster mortar dries.
- Apply 10 cm overlaps at the joints of the reinforcement mesh.
- Apply the 2nd coat before the 1st coat of plaster slightly drips water.
- Smoothen the surface with a steel trowel after the 2nd coat.
- Consume the prepared mortar within 3 hours. Dispose of the mortar which has exceeded its pot life. Apply breathing top coat material after the plaster mortar is completely dry.

#### Post-Application Protection & Suggestions

- Mantostone should be used within shelf life. During the application, products that have completed their shelf life should never be used.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- 15 kg multi-ply paper bags.



## 4081 Minart Silver 100

### Mineral Based Fine Textured Decorative Coating



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	White
Shelf Life	12 months in the original sealed packaging in dry place.
Composition	Cement based
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Applications Tools	Steel and plastic trowel
Mixing Ratio	4.75 - 5.5 lt water / 25 kg powder
Consumption	2.0 - 2.2 kg/m <sup>2</sup>
<b>Performance Data</b>	
Service Temperature Range	(-30°C) - (+80°C)
Compressive Strength / Class (EN 1015-11)	3.5-7.5 N/mm <sup>2</sup> - CS III
Bonding Strength – Type of Break (EN 1015 - 12)	≥ 0.45 N/mm <sup>2</sup> / B
Bulk Density of Hardened Mortar (EN 1015-10)	1400 ± 100 kg/m <sup>3</sup>
Capillary Water Absorption – Class (EN 1015-18)	≤ 0.40 kg/m <sup>2</sup> dk <sup>0.5</sup> – W2
Water Vapor Permeability Coefficient/(μ) (EN 1745)	< 15 (Table Value)
Thermal Conductivity (EN 1745)	≤ 0.53 W/m.K (Table Value) P = 50%
Reaction to Fire (EN 13501 - 1)	A1
Dangerous Substances (EN 998 - 1)	See SDS

#### Description

Cement based, fine textured decorative exterior coating material.

#### Fields of Application

- Used on well plastered surfaces of exterior coating systems.

#### Properties

- Provides quick application by being easily applied.
- Easy to give texture.
- Resilient to extreme climatic conditions with its superior performance.
- Forms a natural and decorative textured surface with its characteristic filling.
- High water vapour permeability allowing the building to breathe.
- Allows the building to breathe thanks to its moisture removal ability.

#### Preparation of Substrates

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be clean and dry.
- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.
- Use Kalekim Tamirart in case of uneven substrates to get sound and flat surface.

#### Application

- Pour Minart Silver 100 on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix.
- Allow to stand for 5-10 minutes to mature. After remixing the paste is ready for application.

- Apply Minart Silver 100 evenly to the surface by means of a stainless steel trowel as far as the required filling span. Apply a plastic trowel in circular movements to gain texture.
- Consume the prepared mortar within 3 hours. Dispose of the mortar which has exceeded its pot life.
- Finish all adjoining surfaces in a single application.

#### Post-Application Protection & Suggestions

- New mineral substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.
- Do not leave Minart Silver 100 as the final coat. Must be painted after drying.
- Do not add any additives, except the ones stated in the product application instructions.
- Ensure that the air and surface temperatures are above +5°C and the surface is rain free during application and 24 hours following the application.
- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity, imminent rain or frost. Hot surfaces should be dampened before application.
- In order to avoid overlapping in large areas or after work pauses, masking tape should be used
- or an adequate number of applicators should be employed to apply the plaster wet-on-wet without interruptions.
- The above values are given for 23°C±2 temperature and % 50±5 humidity conditions. Values
- may differ depending on environmental conditions.

- Not suitable for application on horizontal surfaces exposed to rain or moisture.
- Should be used within shelf life. If shelf life has expired, it should not be used during application.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- 25 kg multi-ply paper bags.

## 4086 Minart Silver 150

### Mineral Based Fine Textured Decorative Coating



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Appearance	White
Shelf Life	12 months in the original sealed packaging in dry place.
Composition	Cement based
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Applications Tools	Steel and plastic trowel
Mixing Ratio	5.25 - 6.0 lt water / 25 kg powder
Consumption	2.0 - 2.2 kg/m <sup>2</sup>
<b>Performance Data</b>	
Service Temperature Range	(-30°C) - (+80°C)
Compressive Strength / Class (EN 1015-11)	3.5-7.5 N/mm <sup>2</sup> - CS III
Bonding Strength – Type of Break (EN 1015 - 12)	≥ 0.45 N/mm <sup>2</sup> / B
Bulk Density of Hardened Mortar (EN 1015-10)	1400 ± 100 kg/m <sup>3</sup>
Capillary Water Absorption – Class (EN 1015-18)	≤ 0.40 kg/m <sup>2</sup> dk <sup>0.5</sup> – W2
Water Vapor Permeability Coefficient/(μ) (EN 1745)	< 15 (Table Value)
Thermal Conductivity (EN 1745)	≤ 0.53 W/m.K (Table Value) P = 50%
Reaction to Fire (EN 13501 - 1)	A1
Dangerous Substances (EN 998 - 1)	See SDS

#### Description

Cement based, fine textured decorative exterior coating material.

#### Fields of Application

- Used on well plastered surfaces of exterior coating systems.

#### Properties

- Provides quick application by being easily applied.
- Easy to give texture.
- Resilient to extreme climatic conditions with its superior performance.
- Forms a natural and decorative textured surface with its characteristic filling.
- High water vapour permeability allowing the building to breathe.
- Allows the building to breathe thanks to its moisture removal ability.

#### Preparation of Substrates

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be clean and dry.
- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.
- Use Kalekim Tamirart in case of uneven substrates to get sound and flat surface.

#### Application

- Pour Minart Silver 150 on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix.
- Allow to stand for 5-10 minutes to mature. After remixing the paste is ready for application.
- Apply Minart Silver 150 evenly to the surface by means of a stainless steel trowel as far as the required filling span. Apply a plastic trowel in circular movements to gain texture.
- Consume the prepared mortar within 3 hours. Dispose of the mortar which has exceeded its pot life.
- Finish all adjoining surfaces in a single application.

#### Post-Application Protection & Suggestions

- New mineral substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.
- Do not leave Minart Silver 150 as the final coat. Must be painted after drying.
- Do not add any additives, except the ones stated in the product application instructions.
- Ensure that the air and surface temperatures are above +5°C and the surface is rain free during application and 24 hours following the application.
- Do not apply in extremely hot weather, under glaring sun,

- during strong wind, fog, high relative humidity, imminent rain or frost. Hot surfaces should be dampened before application.
- In order to avoid overlapping in large areas or after work pauses, masking tape should be used
- or an adequate number of applicators should be employed to apply the plaster wet-on-wet without interruptions.
- The above values are given for 23°C±2 temperature and % 50±5 humidity conditions. Values
- may differ depending on environmental conditions.
- Not suitable for application on horizontal surfaces exposed to rain or moisture.
- Should be used within shelf life. If shelf life has expired, it should not be used during application.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- 25 kg multi-ply paper bags.



## 4082 Minart Silver 200

### Mineral Based Decorative Coating



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	White	
Shelf Life	12 months in the original sealed packaging in dry place.	
Composition	Cement based	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Applications Tools	Steel and plastic trowel	
Mixing Ratio	5.75 – 6.5 lt water / 25 kg powder	
Consumption	2.4 – 2.8 kg/m <sup>2</sup>	
<b>Performance Data</b>		
Service Temperature Range	(-30°C) - (+80°C)	
Compressive Strength / Class (EN 1015-11)	3.5-7.5 N/mm <sup>2</sup> . CS III	
Bonding Strength – Type of Break (EN 1015 - 12)	≥ 0.45 N/mm <sup>2</sup> / B	
Bulk Density of Hardened Mortar (EN 1015-10)	1400 ± 100 kg/m <sup>3</sup>	
Capillary Water Absorption – Class (EN 1015-18)	≤ 0.40 kg/m <sup>2</sup> dk <sup>0.5</sup> – W2	
Water Vapor Permeability Coefficient/(μ) (EN 1745)	< 15 (Table Value)	
Thermal Conductivity (EN 1745)	≤ 0.53 W/m.K (Table Value) P = 50%	
Reaction to Fire (EN 13501 - 1)	A1	
Dangerous Substances (EN 998 - 1)	See SDS	

#### Description

Cement based, decorative exterior coating material.

#### Fields of Application

- Used on well plastered surfaces of exterior coating systems.

#### Properties

- Provides quick application by being easily applied.
- Easy to give texture.
- Forms a natural and decorative textured surface with its characteristic filling.
- High water vapour permeability allowing the building to breathe.
- Allows the building to breathe thanks to its moisture removal ability.

#### Preparation of Substrates

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound clean and dry.
- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound clean and dry.
- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.
- Use Kalekim Tamirart in case of uneven substrates to get sound and flat surface.

#### Application

- Pour Minart Silver 200 on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix.
- Allow to stand for 5-10 minutes to mature. After remixing the paste is ready for application.
- Apply Minart Silver evenly to the surface by means of a stainless steel trowel as far as the required filling span. Apply a plastic trowel in circular movements to gain texture.
- Finish all adjoining surfaces in a single application.

#### Post-Application Protection & Suggestions

- Consume the prepared mortar within 3 hours. Dispose of the mortar which has exceeded its pot life.
- New mineral substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.
- Do not leave Minart Silver as the final coat. Must be painted after drying.
- Do not add any additives, except the ones stated in the product application instructions.
- Ensure that the air and surface temperatures are above +5 °C and the surface is rain free during application and 24 hours following the application.
- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity, imminent rain or frost. Hot surfaces should be dampened before application.
- In order to avoid overlapping in large areas or after work pauses, masking tape should be used or an adequate number of applicators should be employed to apply the plaster wet-on-wet without interruptions.
- The above values are given for 23°C±2 temperature and % 50±5 humidity conditions. Values may differ depending on environmental conditions.
- Not suitable for application on horizontal surfaces exposed to rain or moisture.
- Minart Silver 200 should be used within shelf life. If shelf life has expired, it should not be used during application.

- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- 25 kg multi-ply paper bags.



TS EN 998-1: February 2017

## 4085 Minart Silver 300

### Mineral Based Coarse Textured Decorative Exterior Coating



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	White	
Shelf Life	12 months in the original sealed packaging in dry place.	
Composition	Cement based	
Packages	25 kg multi-ply paper bags	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Applications Tools	Steel and plastic trowel	
Mixing Ratio	25 kg powder / 5.75-6.5 lt water	
Consumption	3.8-4.0 kg/m <sup>2</sup>	
<b>Performance Data</b>		
Service Temperature Range	(-30°C) - (+80°C)	
Compressive Strength / Class (EN 1015-11)	3.5-7.5 N/mm <sup>2</sup> . CS III	
Bonding Strength – Type of Break (EN 1015-12)	≥ 0.45 N/mm <sup>2</sup> / B	
Bulk Density of Hardened Mortar (EN 1015-10)	1500 ± 100 kg/m <sup>3</sup>	
Capillary Water Absorption – Class (EN 1015-18)	≤ 0.40 kg/m <sup>2</sup> dk <sup>0.5</sup> – W2	
Water Vapor Permeability Coefficient/(μ) (EN 1745)	< 15 (Table Value)	
Thermal Conductivity (EN 1745)	≤ 0.61 W/m.K (Table Value) P = 50%	
Reaction to Fire (EN 13501 - 1)	A1	
Dangerous Substances (EN 998 - 1)	See SDS	

#### Description

Cement-based, coarse textured decorative exterior coating.

#### Fields of Application

- Used on well plastered surfaces of exterior coating systems.

#### Properties

- Provides quick application by being easily applied.
- Easy to give texture.
- Forms a natural and decorative textured surface with its characteristic filling.
- High water vapour permeability allowing the building to breathe.
- Allows the building to breathe thanks to its moisture removal ability.

#### Preparation of Substrates

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be clean and dry.
- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.
- Use Kalekim Tamirart in case of uneven substrates to get sound and flat surface.
- All water insulation precautions should have been taken prior to application.

#### Application

- Pour Minart Silver 300 on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix.
- Allow to stand for 5-10 minutes to mature. After remixing the paste is ready for application.
- Apply Minart Silver 300 evenly to the surface by means of a stainless steel trowel as far as the required filling span. Apply a plastic trowel in vertical and circular movements to gain texture.
- Finish all adjoining surfaces in a single application.

#### Post-Application Protection & Suggestions

- Consume the prepared mortar within 3 hours. Dispose of the mortar which has exceeded its pot life.
- New mineral substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.
- Do not leave Minart Silver 300 as final coat. Must be painted after drying.
- Do not add any additives, except the ones stated in the product application instructions.
- Ensure that the air and surface temperatures are above +5° C and the surface is rain free during application and 24 hours following the application.
- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity, imminent rain or frost. Hot surfaces should be dampened before application.

- In order to avoid overlapping in large areas or after work pauses, masking tape should be used or an adequate number of applicators should be employed to apply the plaster wet-on-wet without interruptions.
- The above values are given for 25°C+2 temperature and % 50±5 humidity conditions. Values may differ depending on environmental conditions.
- Not suitable for application on horizontal surfaces exposed to rain or moisture.
- Should be used within shelf life. If shelf life has expired, it should not be used during application.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- 25 kg multi-ply paper bags.



TS EN 998-1: February 2017

## 4084 Minart Dekor 300

### Mineral Based Line Textured Decorative Coating



**Description**  
Cement-based, line-texture decorative coating.

**Fields of Application**  
• Used on well plastered surfaces of exterior coating systems.

**Properties**  
• Specially manufactured for thermal insulation systems and resilient to extreme climatic conditions with its superior performance.  
• Provides quick application by being easily applied.  
• Easy to give texture.  
• Forms a natural and decorative textured surface with its characteristic filling.  
• High water vapour permeability allowing the building to breathe.  
• Allows the building to breathe thanks to its moisture removal ability.

**Preparation of Substrates**  
• The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound clean and dry.  
• Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.  
• Use Kalekim Tamirart in case of uneven substrates to get sound and flat surface.  
• All water insulation precautions should have been taken prior to application.

**Application**  
• Pour Minart Dekor 300 on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix.  
• Allow to stand for 5-10 minutes to mature. After remixing the paste is ready for application.  
• Apply Minart Dekor 300 evenly to the surface by means of a stainless steel trowel as far as the required filling span. Apply a plastic trowel in vertical and circular movements to gain texture.  
• Finish all adjoining surfaces in a single application.

Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	White	
Shelf Life	12 months in the original sealed packaging in dry place.	
Composition	Cement based	
Packages	25 kg multi-ply paper bags	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Applications Tools	Steel and plastic trowel	
Mixing Ratio	25 kg powder / 5.75-6.5 lt water	
Consumption	3.0-3.5 kg/m <sup>2</sup>	
<b>Performance Data</b>		
Service Temperature Range	(-30°C) - (+80°C)	
Compressive Strength / Class (EN 1015-11)	≥ 6 N/mm <sup>2</sup> - CS IV	
Bonding Strength – Type of Break (EN 1015 - 12)	≥ 0.60 N/mm <sup>2</sup> / B	
Bulk Density of Hardened Mortar (EN 1015-10)	1600 ± 100 kg/m <sup>3</sup>	
Capillary Water Absorption – Class (EN 1015-18)	≤ 0.40 kg/m <sup>2</sup> dk <sup>0.5</sup> – WC1	
Water Vapor Permeability Coefficient/(μ) (EN 1745)	< 15	
Thermal Conductivity (EN 1745)	≤ 0.72 W/m.K (Table Value ) P = 50%	
Reaction to Fire (EN 13501 - 1)	A1	
Dangerous Substances (EN 998 - 1)	See SDS	

#### Post-Application Protection & Suggestions

- Consume the prepared mortar within 5 hours. Dispose of the mortar which has exceeded its pot life.
- New mineral substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.
- Do not leave Minart Dekor 300 as final coat. Must be painted after drying.
- Do not add any additives, except the ones stated in the product application instructions.
- Ensure that the air and surface temperatures are above +5 °C and the surface is rain free during application and 24 hours following the application.
- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity, imminent rain or frost. Hot surfaces should be dampened before application.
- In order to avoid overlapping in large areas or after work pauses, masking tape should be used or an adequate number of applicators should be employed to apply the plaster wet-on-wet without interruptions.
- The above values are given for 25°C+2 temperature and % 50+5 humidity conditions. Values may differ depending on environmental conditions.
- Not suitable for application on horizontal surfaces exposed to rain or moisture.
- Should be used within shelf life. If shelf life has expired, it should not be used during application.

- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- 25 kg multi-ply paper bags.

## 4088 Minart Pro 300

### Mineral Based Line Textured Decorative Coating



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	White	
Shelf Life	12 months in the original sealed packaging in dry place.	
Composition	Cement based	
Packages	25 kg paper bag	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Applications Tools	Steel and plastic trowel	
Mixing Ratio	5.0-5.5 lt water / 25 kg powder	
Consumption	Approximately 4.0 kg/m <sup>2</sup>	
<b>Performance Data</b>		
Service Temperature Range	(-30°C) - (+80°C)	
Compressive Strength / Class (EN 1015-11)	3.5-7.5 N/mm <sup>2</sup> - CS III	
Bonding Strength – Type of Break (EN 1015 - 12)	≥ 0.45 N/mm <sup>2</sup> / B	
Bulk Density of Hardened Mortar (EN 1015-10)	1450 ± 100 kg/m <sup>3</sup>	
Capillary Water Absorption – Class (EN 1015-18)	≤ 0.40 kg/m <sup>2</sup> dk <sup>0.5</sup> – Wc1	
Water Vapor Permeability Coefficient/(μ) (EN 1745)	≤ 15	
Thermal Conductivity (EN 1745)	≤ 0.57 W/m.K (Table Value ) P = 50%	
Reaction to Fire (EN 13501 - 1)	A1	
Dangerous Substances (EN 998 - 1)	See SDS	

#### Description

White cement based, with high water repellency, top coating that creates rough line texture on the thermal insulation systems.

#### Fields of Application

- Used on well plastered surfaces of exterior coating systems.

#### Properties

- Applied as a final coating on exterior thermal insulation.
- Provides quick application by being easily applied.
- Easy to give texture.
- Resilient to extreme climatic conditions with its superior performance.
- High impact resistance
- Forms a natural and decorative line textured surface with its characteristic filling.
- High water vapour permeability allowing the building to breathe.
- Allows the building to breathe thanks to its moisture removal ability.

#### Preparation of Substrates

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion.
- Use Kalekim Tamirart in case of uneven substrates to get sound and flat surface.

#### Application

- Pour Minart Pro 300 on the amount of clean water specified in the technical table slowly and mix to obtain a homogeneous paste free from lumps. A low speed mixer is recommended to mix.
- Allow to stand for 5-10 minutes to mature. After remixing the paste is ready for application.
- Apply Minart Pro 300 evenly to the surface by means of a stainless steel trowel as far as the required filling span. Apply a plastic trowel to gain line texture. Before line texturing process, it is recommended to wait for at least 5 minutes after applying the product to the surface.
- Finish all adjoining surfaces in a single application.

#### Post-Application Protection & Suggestions

- Consume the prepared mortar within 5 hours. Dispose of the mortar which has exceeded its pot life.
- New mineral substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.
- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.
- Do not leave Minart Pro 300 as final coat. Must be painted after drying.
- Do not add any additives, except the ones stated in the product application instructions.
- Ensure that the air and surface temperatures are above +5° C and the surface is rain free during application and 24 hours following the application.

- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity, imminent rain or frost. Hot surfaces should be dampened before application.
- In order to avoid overlapping in large areas or after work pauses, masking tape should be used or an adequate number of applicators should be employed to apply the plaster wet-on-wet without interruptions.
- The above values are given for 25°C+2 temperature and % 50+5 humidity conditions. Values may differ depending on environmental conditions.
- Not suitable for application on horizontal surfaces exposed to rain or moisture.
- Should be used within shelf life. If shelf life have expired should not be used during application.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- Since it contains cement, it irritates the eyes, respiratory system and skin. For further information refer to the safety data sheet.

#### Storage

- Packages should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Do not stack more than 10 bags on top of each other.
- Shelf life is maximum 12 months conditional to complying with the above mentioned conditions.

#### Packaging

- 25 kg multi-ply paper bags.



## Kalekim Thermal Insulation System Components



**Kalekim EPS Reinforcement Mesh**  
It is a glass wool material having impregnated fiber layers against alkali and chemicals.



**Kalekim EPS Meshed PVC Corner Profile**  
It is the meshed PVC profile used to reinforce the weak sections (edges, corners, etc.) that are most easily affected from external factors.



**Kalekim Anchor with Plastic Nail**  
It is the mechanical fitting piece that is used to fix the Kale EPS Thermal Insulation Boards to the facade.



**Kalekim Anchor with Steel Nail**  
It is a mechanical fitting piece which is used to fix the Kale Thermal Insulation Boards to the reinforced concrete and hard surfaces. Steel nail is particularly preferred in Stone Wool insulation applications.

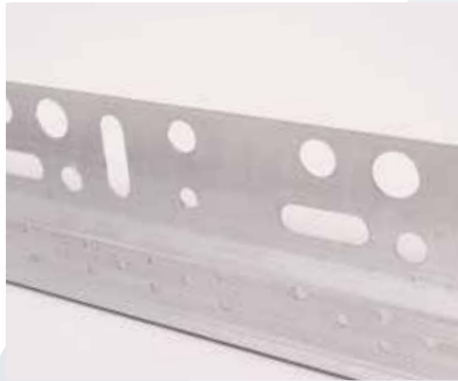


**Kalekim Wooden "OSB" Anchor with Screw**  
Plastic drill-tipped metal screws used in Kale thermal insulation applications on wood (OSB etc.) and cement-bonded particleboard surfaces.

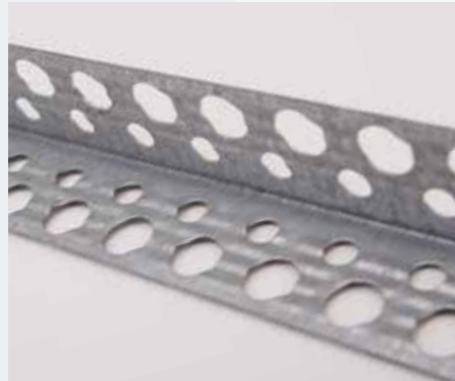


**Kalekim Aerated Concrete Anchor**  
Plastic screw or steel nail fitting piece used in Kale thermal insulation applications on aerated concrete surfaces. Selected depending on insulation material type and thickness.

## Kalekim Thermal Insulation System Accessories



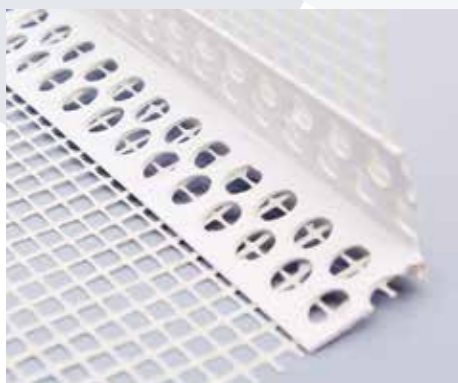
**Kalekim Inundation Profile**  
It is an aluminum profile which protects the system against impacts and that is used as inundation plane.



**Kalekim Aluminum Corner Profile**  
It is an aluminum profile which protects the external corners against impacts.



**Kalekim Aluminum Edging Profile**  
It is an aluminum profile which is used in corbels to protect the facade against water.



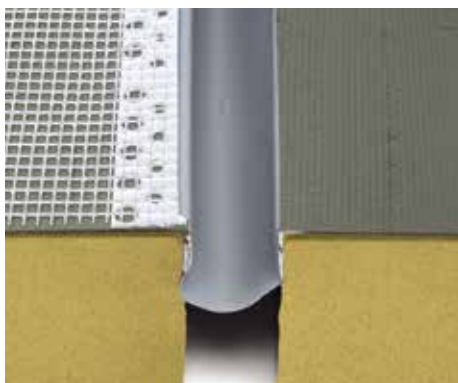
**Kalekim Meshed PVC Edging Profile**  
It is a meshed PVC profile which is used in corbels to protect the facade against water.



**Kalekim Fuqua Profile**  
It is a profile which is used to form joints on the facade.



**Kalekim Dilatation Profile**  
It is a profile which is used to cover the dilatation space and enable sheathing system to function at dilatation points.



**Kalekim Sill Profile**  
It is an aluminum and PVC profile which is used to lengthen the current windowsill.

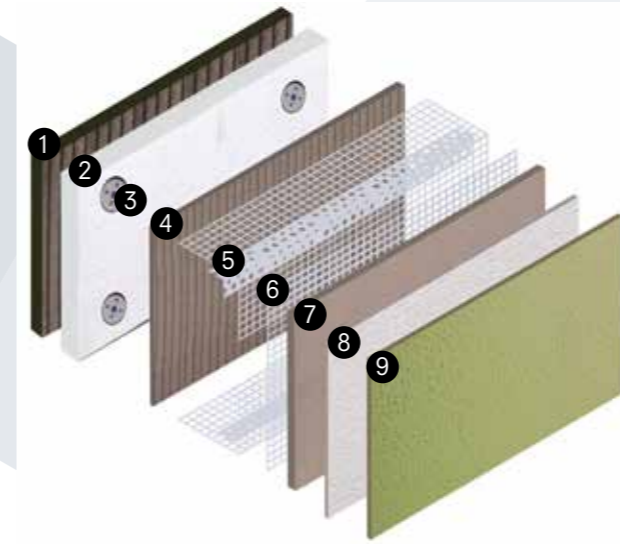


**Kalekim Inundation Wedge**  
It is a plastic material which is used to smooth the undulation existing on the facade and balance the inundation profile.



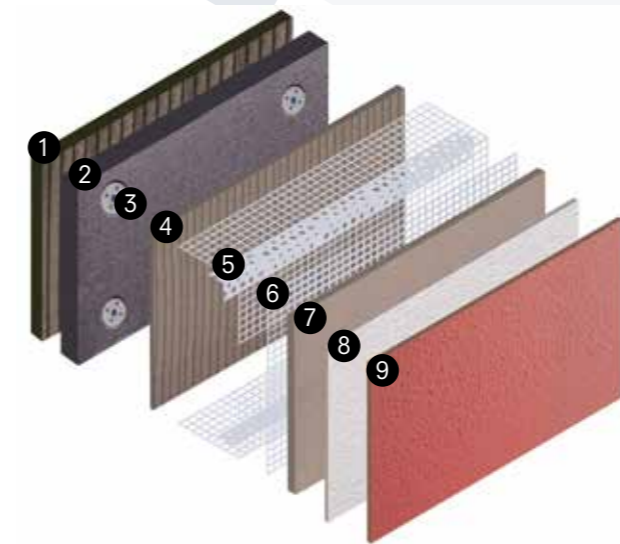
**Kalekim Sinker Heading**  
It is a fixture which is used to place the anchor heading firmly on Kale EPS boards.

## Kalekim Thermal Insulation Components



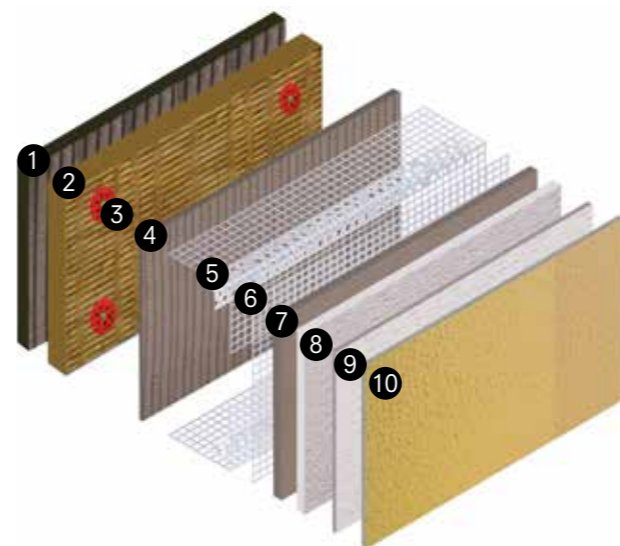
### Kalekim White EPS System Components

- 1- Kale White EPS Foamtech / Mantotech Adhesive Mortar
- 2- Kale White EPS Thermal Insulation Board
- 3- Kale White EPS Anchor
- 4- Kale White EPS Foamplast / Mantoplast Plaster Mortar
- 5- Kale White EPS Meshed PVC Corner Profile
- 6- Kale White EPS Reinforcement Mesh
- 7- Kale Beyaz EPS Foamplast / Mantoplast Plaster Mortar
- 8- Kale Silastar
- 9- Kale Paint, Plaster and Decorative Coating



### Kalekim Carbon EPS System Components

- 1- Kale Carbon EPS Foamtech / Mantotech / Mantomix Adhesive Mortar
- 2- Kale Carbon EPS Thermal Insulation Board
- 3- Kale Carbon EPS Anchor
- 4- Kale Carbon EPS Foamplast / Mantoplast / Mantomix Plaster Mortar
- 5- Kale Carbon EPS Meshed PVC Corner Profile
- 6- Kale Carbon EPS Reinforcement Mesh
- 7- Kale Carbon EPS Foamplast / Mantoplast / Mantomix Plaster Mortar
- 8- Kale Silastar
- 9- Kale Paint, Plaster and Decorative Coating



### Kalekim Stone Wool System Components

- 1- Kale Stone Wool Mantotech / Mantostone Adhesive Mortar
- 2- Kale Stone Wool Thermal Insulation Board
- 3- Kale Stone Wool Anchor
- 4- Kale Stone Wool Mantoplast / Mantostone Plaster Mortar
- 5- Kale Stone Wool Meshed PVC Corner Profile
- 6- Kale Stone Wool Reinforcement Mesh
- 7- Kale Stone Wool Mantoplast / Mantostone Plaster Mortar
- 8- Kale Minart Gold / Minart Silver / Minart Dekor
- 9- Kale Silastar
- 10- Kale Paint, Plaster

## Thermal Insulation Technical Informations

### Installation of Kalekim Inundation Profile

The surface is taken to the square using Kale Inundation Wedges in order to smooth the obliquties on the surface while installing the Kale Inundation Profile. Select Inundation Profiles suitable for the board thickness.



Subasman profilinin plastik takozlarla dengelenmesi.



Subasman profilinin dübel ile monte edilmesi.



Levhaların subasman profiline yerleştirilmesi.

### Installing and Bonding of Kalekim EPS Thermal Insulation Boards

The surface must be definitely checked before the application. If deemed necessary, the surface must be repaired using structural repair mortar. Kale EPS Thermal Insulation Boards, which have been applied Kale EPS Mantotech Thermal Insulation Board Adhesive Mortar, are installed on the Inundation profile and pasted on the wall by slightly shifting in a way that no space is left between the boards.



Mantotech Thermal Insulation Board Adhesive Mortar must be applied on the edges of the board, and adequate number of lumps must be formed at the center of the plate according to the dimension of the board. Ensure to have minimum 40% adhesive contact at the back of the board.



Raking must be performed (Notched trowel with 10x10 tooth dimensions) depending on the smoothness of the surface.



Bonding Kale EPS Thermal Insulation Board, the backsides of which have been applied Mantotech Thermal Insulation Board Adhesive Mortar, on the surface.

### Anchoring Kalekim EPS Thermal Insulation Boards

In addition to the bonding process, mechanical fitting pieces are needed for Kale EPS Thermal Insulation Boards to maintain their continuance and performance in a long-lasting way. 24 hours after the bonding process is performed with Kale EPS Mantotech Thermal Insulation Board Adhesive Mortar, anchors must be installed as 6 units per square meter on the points where the building height is lower than 8 meters, and continuance must be maintained. The higher the building height, the higher the number of utilized anchors per square meter. 6 units at building corners up to 8 meters. 8 units at building corners up to 8-20 meters. 10 units at building corners at and over 20 meters.



Counterboring must be performed in order for the anchor head to be firmly placed on the pasted Kale EPS Thermal Insulation Board.



Anchor point is drilled.



Anchor is placed and the pin is removed.

### Forming Building Corners and Window Borders

In order to form a smooth and durable corner in edge and corner finishing, aluminum or Kale Meshed PVC Corner Profile is placed in the first layer of the Mantoplast Thermal Insulation Board Plaster Mortar. First layer of plaster is applied on the center corners of windows, and Kale Meshed PVC Corner Profile is placed. The first layer of the exterior facade is completed by overlapping with 10 cm Kale Reinforcement Mesh and Kale Meshed PVC Corner Profile that have been placed in Mantoplast Thermal Insulation Board Plaster Mortar.



Installing the Kale Meshed PVC Corner Profile.



Installing the Kale Meshed PVC Corner Profile on window corners.



Installing the Kale Meshed PVC Edging Profile.

## Thermal Insulation Technical Informations

### Forming the Layers of Mantoplast Thermal Insulation Board Plaster Mortar

The first layer of Mantoplast Thermal Insulation Board Plaster Mortar must be applied at least 24 hours after the adhesion application. The first layer plaster mortar must be raked with a notched trowel having 4x4 tooth dimensions in order to maintain an equal consumption and get a homogenous thickness. Right after applying the first layer of plaster mortar, reinforcement mesh is placed horizontally or vertically by being lightly immersed in the mortar. Second layer of plaster mortar is applied before the first layer is dried. While applying the second layer of plaster mortar, wait for the first layer to lightly give off its water for preventing Kale EPS Reinforcement Mesh from coming loose or immersing in the first layer of plaster mortar depending on the weather conditions.



Application and raking of the 1st coat of Mantoplast thermal insulation board plaster mortar.



10 cm overlapped application of reinforcement mesh.



Application of 2nd plaster coat.

### Formation of Kalekim Decorative Coatings

After Mantoplast Thermal Insulation Board Plaster Mortar has been dried, surface preparation must be performed in accordance with the type of the decorative coating material that will be applied on the surface. The surface on which acrylic based decorative coating material will be applied, must firstly be primed with Kale Silastar. If mineral based Minart Gold, Minart Silver or Minart Dekor is preferred as topcoat, Kale Silastar must be applied on the surface after Minart application.



Priming the surface with Silastar.



Decorative coatings are applied on the surface using a trowel. Thickness, of the application changes depending on the plaster type.



Texture is formed by glazing the coatings on their surface with a plastic trowel before they dry. Since Minart is mineral based, it must necessarily be primed with Kale Silastar and painted with water based Kale Exterior Paints after it dries.



Kale Exterior Paint application on Minart

### Points to Consider in Stone Wool Application

Thanks to its high water absorption, Stone Wool is applied at the edges of the board and lump areas before the adhesion application, and surplus adhesive mortar is removed. This reduces the absorption of areas which will be applied adhesive. Apply adhesive mortar to the edges and center and press against the surface.

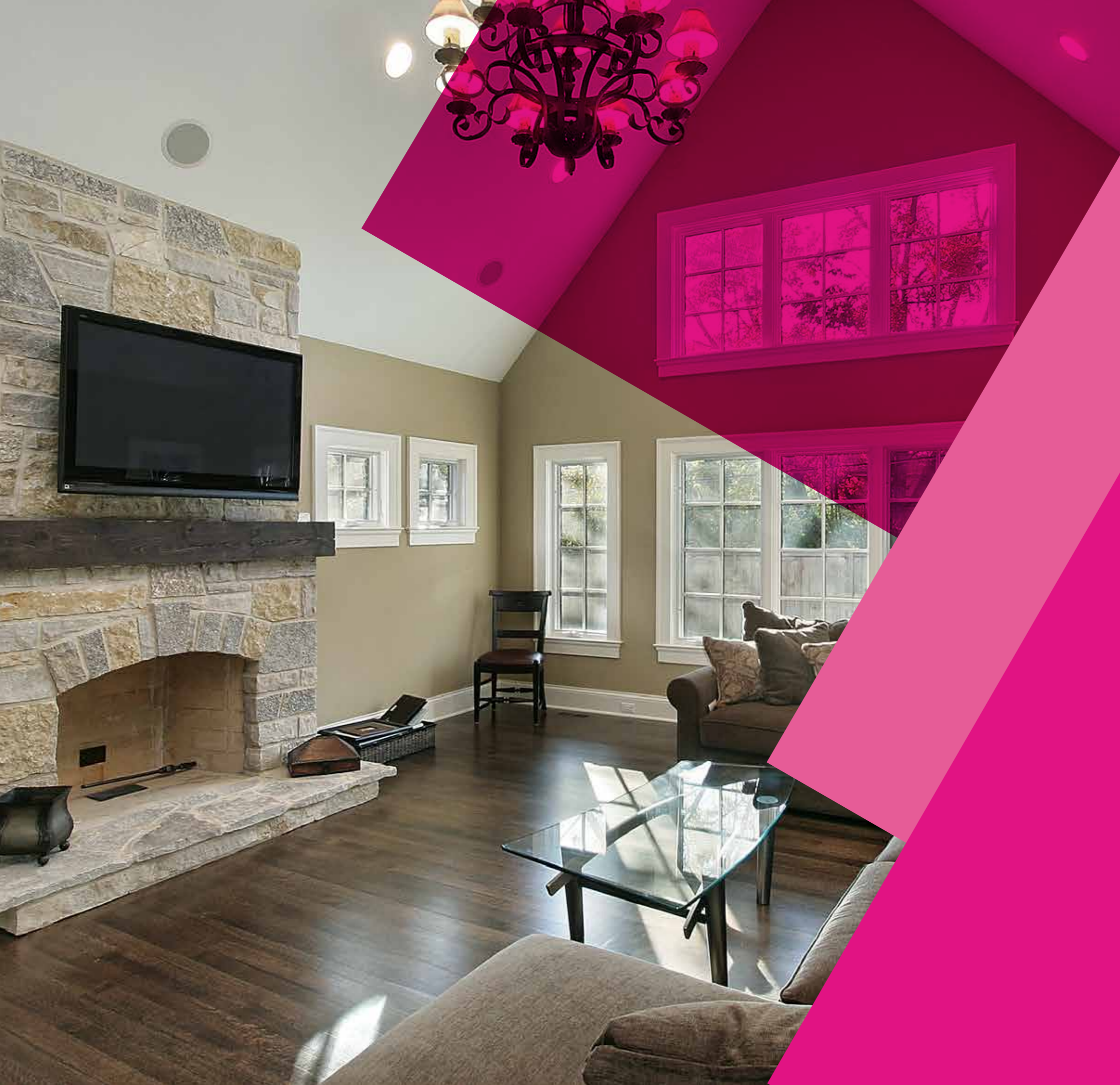


### Stone Wool Anchoring Method

Use steel nails / anchors with screw for Stone Wool application. Use additional anchor heads depending on wind load requirements.



No need to block corners since thermal expansion is too low. Fix the anchors in "W" shapes



## Interior Wall Paints

- 268 KALIA FRESH COMFORT
- 269 KALIA IPEK MAT
- 270 KALIA MAT
- 271 KALIA CLEAN CARE
- 272 JOKER PLUS MAT
- 273 ISITUT
- 274 SUTEN
- 275 TAVAN PLASTIĞI

## 5062 Kalia Fresh Comfort

Ultra - Low VOC, Formaldehyde Abating Water Based Interior Paint



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Composition	Acrylic emulsion based
Colours	White and A, B, C bases and thousands of colours possible by using Renk Bankası and Renk Ustası.
Density	Approx. 1.47 g/cm <sup>3</sup>
Tinner	Water
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Recoat 6 hours, thourgly drying time 24 hours. Lower temperatures and/or higher relative humidity will lengthen the drying process.
Consumption	Depending on the evenness and the porosity of the surface approximately 0,06 - 0,1 L/m <sup>2</sup>
Application Tools	Spatula, Brush, Spray gun
<b>Performance Data</b>	
TS EN 13300	
Gloss	Semi Matt
Contrast Ratio	Class 2 (7 m <sup>2</sup> /L)
Largest Grain Size	Fine
Wet Scrub Resistance	Class 1

### Description

Acrylic emulsion based, interior paint with silk matt appearance that is human and environment friendly due to its contributions to air quality by its formaldehyde abatement feature and Ammonia & APEO free composition (up to 87% within 24 hours) and with ultra low volatile / semi-volatile organic chemical compounds (VOC / SVOC) content.

### Fields of Application:

On suitably prepared interiors such as mineral new surfaces such as black plaster, concrete, cement board, gypsum panel, old painted surfaces and putty.

### Properties

- Can be used in children's rooms, school, hospital safely due to its contribution to air quality.
- Absorbs the formaldehyde released from different sources such as furniture, parquet, door, wooden cupboard heater, etc. and so it increases the air quality.
- Ammonia and APEO free.
- Provides up to 87% formaldehyde removal at the end of 24 hours.
- By its ultra-low volatile and semi-volatile organic compounds content, it is human and environment friendly.
- Complies with Indoor Air Comfort and Indoor Air Comfort Gold levels (certified by Eurofins) and suitable for LEED certification.

- Easily cleanable
- Superior hiding power.
- Odourless.
- High water vapour permeability, allowing buildings to breathe.

### Application

- The surface must be cleaned off from dust, dirt, oil and old blistered coatings that may prevent good adhesion.
- The surface should be made sound, clean and dry. Before the application on new mineral surfaces should be waited for at least 28 days to cure. All water-related insulation measures of the building must be taken beforehand.
- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the powder residue.
- If necessary, fill the surface cracks and even the substrate with Kale İnce Akırlık Macun or Kalekim Macunart.
- Prime old painted, very dirty or new and porous surfaces with Kale Silastar, and plaster surfaces with Saten Alçı Astarı.

- Kale Fresh Comfort should be mixed thoroughly before application.
- After mixing, thin Kale Fresh Comfort with clean water up to a maximum of 20% by volume and apply in two coats by using a brush, roller or spray system.

### Precautions

- Wait for a minimum of 6 hours between coats.
- Ensure that surface and ambient temperatures are minimum (+5°C) and maximum (+35°C) during and 24 hours following the application.
- Application tools should be washed with water immediately after use.
- Base paints should be used after adding colorants.

### Storage

Store between 5 - 35 °C.

### Packing

2,5 L plastic pails.



## 5163 Kalia İpek Mat

Silky Matt, Silicone Enhanced, Water Based Interior Wall Paint



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Composition	Acrylic emulsion based
Colours	Thousands of colours possible from a mixture of white and A, B, C bases by using Renk Bankası
Density	Approx. 1.34 g/cm <sup>3</sup>
Tinner	Water
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Recoat after 6 hours and thoroughly dry after 24 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)
Consumption	Depending on the evenness and the porosity of the surface approximately 0.04-0.06 L/m <sup>2</sup> per coat.
Application Tools	Brush, Roller, Airless spraying equipment
<b>Performance Data</b>	
TS EN 13300	
Gloss	Semi Matt
Contrast Ratio	Class 2 (7 m <sup>2</sup> /L)
Largest Grain Size	Fine
Wet Scrub Resistance	Class 1

### Description

Acrylic emulsion based, silicone enhanced, easy to clean, perfectly scrub resistant, silky matt interior wall paint.

### Fields of Application

- On interiors suitably prepared new mineral surfaces such as concrete, mortar, cement panel, gypsum panel etc. and on old painted surfaces and putty.

### Properties

- Silicone enhanced. Cleanable with its perfect scrub resistance therefore stain free.
- Easily re-touchable, does not leave brush or roller marks.
- High water vapour permeability, allowing the building to breathe.
- Superior hiding power.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application.
- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.
- If necessary, fill the surface cracks and even the substrate with Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- To have a fine, silky texture, smoothen the entire surface by using Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- Prime the solvent based painted surfaces or water based painted surfaces on which colour change is desired and old painted water based and very dirty surfaces with Kale SİLASTAR and new and porous surfaces with Kale SATEN ALÇI ASTARI or Kale SİLASTAR.

- After thoroughly mixing, thin KALIA İPEK MAT with clean water up to a maximum of 10% by volume and apply in two coats by using a brush, roller or spray system.
- Wait for a minimum of 6 hours before applying the final coat.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C during the application and 24 hours following the application.

### Storage

- Store between 5 - 35 °C.

### Packaging

- 2.5, 7.5 L and 15 L pails.
- 2.5 L packages packed together in 2s.





## 5156 Kalia Mat

Matt, Silicone Enhanced, Water Based Interior Wall Paint



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Composition	Acrylic emulsion based	
Colours	Thousands of colours possible from a mixture of white and A, B, C bases by using Renk Bankası	
Density	Approx. 1.64 g/cm <sup>3</sup>	
Tinner	Water	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	Recoat after 6 hours and thoroughly dry after 24 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)	
Consumption	Depending on the evenness and the porosity of the surface approximately 0.05-0.07 L/m <sup>2</sup> per coat.	
Application Tools	Brush, Roller, Airless spraying equipment	
<b>Performance Data</b>		
TS EN 13300		
Gloss	Matt	
Contrast Ratio	Class 1 (5 m <sup>2</sup> /L)	
Largest Grain Size	Fine	
Wet Scrub Resistance	Class 2	

### Description

Acrylic emulsion based, silicone enhanced, scrub resistant, matt, interior wall paint.

### Fields of Application

• On interiors suitably prepared new mineral surfaces such as concrete, mortar, cement panel, gypsum panel etc. and on old painted surfaces and putty.

### Properties

- Silicone enhanced. Cleanable with its perfect scrub resistance.
- Provides surfaces with matt, clean decorative finish.
- High water vapour permeability, allowing the building to breathe.
- Superior hiding power.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion.
- The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application.
- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.
- If necessary, fill the surface cracks and even the substrate with Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- To have a fine, smooth texture, smoothen the entire surface by using Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- Prime the solvent based painted surfaces or water based painted surfaces on which colour change is desired and old painted water based and very dirty surfaces with Kale SİLASTAR and new and porous surfaces with SATEN ALÇI ASTARI or Kale SİLASTAR.

- After thoroughly mixing, thin KALIA MAT with clean water up to a maximum of 25% by volume and apply it in two coats by using a brush, roller or spray system.
- Wait for a minimum of 2 hours before applying the final coat.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C during the application and 24 hours following the application.

### Storage

- Store between 5 - 35 °C.

### Packaging

- 2.5, 7.5 L and 15 L pails.
- 2.5 L packages packed together in 2s.



Complies with TS 5808

## 5158 Kalia Clean Care

Easy Clean, Silicone Enhanced, Silk Matt, Water Based Interior Wall Paint



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Composition	Acrylic emulsion based	
Colours	Thousands of colours possible from a mixture of white and A, B, C bases by using Renk Bankası	
Density	Approx. 1.29 g/cm <sup>3</sup>	
Tinner	Water	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	Recoat after 6 hours and thoroughly dry after 24 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)	
Consumption	Depending on the evenness and the porosity of the surface approximately 0.077-0.100 L/m <sup>2</sup> per coat.	
Application Tools	Brush, Roller, Airless spraying equipment	
<b>Performance Data</b>		
TS EN 13300		
Gloss	Semi Matt	
Contrast Ratio	Class 2 (7 m <sup>2</sup> /L)	
Largest Grain Size	Thin	
Wet Scrub Resistance	Class 1	

### Description

Acrylic emulsion based, silicone enhanced, premium quality washable, perfect scrub resistant, silky matt interior wall paint.

### Fields of Application

• On interiors suitably prepared new mineral surfaces such as concrete, mortar, cement panel, gypsum panel etc. and on old painted surfaces and putty.

### Properties

- Thanks to its composition enriched by special additives, Kalia Clean Care provides easy cleaning of most common stains like fingerprint, dust or dirt caused by smoke.
- By blocking stains like tea, coffee, juices, inks to penetrate into paint, it gives opportunity to remove dirt from the surface with less effort.
- High durability against scrub.
- Does not leave brush or roller marks.
- Superior hiding power.
- High water vapour permeability, allowing the building to breathe.

- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application.
- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.
- If necessary, fill the surface cracks and even the substrate with Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- To have a fine, silky texture, smoothen the entire surface by using Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- Prime the solvent based painted surfaces or water based painted surfaces on which colour change is desired and old painted water based and very dirty surfaces with Kale SİLASTAR and new and porous surfaces with Kale SATEN ALÇI ASTARI or Kale SİLASTAR.

- After thoroughly mixing, thin KALIA CLEAN CARE with clean water up to a maximum of 15-20% by volume and apply in two coats by using a brush, roller or spray system.

### Warnings

- Wait for a minimum of 6 hours before applying the final coat.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5°C during the application and 24 hours following the application.
- Base paints must be tinted before application.

### Storage

- Store between 5 - 35 °C.

### Packaging

- 2.5, 7.5 L and 15 L pails.
- 2.5 L packages packed together in 2s.

## 5169 Joker Plus Mat

Silicone Enhanced, Water Based Interior Wall Paint



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Composition	Acrylic emulsion based
Colours	Thousands of colours possible from a mixture of white and A, B, C bases by using Renk Bankası
Density	Approx. 1.66 g/cm <sup>3</sup>
Tinner	Water
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Recoat after 6 hours and thoroughly dry after 24 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)
Consumption	Depending on the evenness and the porosity of the surface approximately 0.05-0.07 L/m <sup>2</sup> per coat.
Application Tools	Brush, Roller, Airless spraying equipment
<b>Performance Data</b>	
TS EN 13300	
Gloss	Matt
Contrast Ratio	Class 2 (7 m <sup>2</sup> /L)
Largest Grain Size	Fine
Wet Scrub Resistance	Class 2

### Description

Acrylic emulsion based, silicone enhanced, scrub resistant, matt interior wall paint.

### Fields of Application

• On interiors, suitably prepared new mineral surfaces such as concrete, mortar, cement panel, gypsum panel etc, on old painted surfaces and putty.

### Properties

- Superior hiding power.
- Scrub resistant.
- Provides matt, clean decorative surfaces.
- High water vapour permeability, allowing buildings to breathe.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application.
- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.
- If necessary, fill the surface cracks and even the substrate with Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- To have a fine, smooth texture, smoothen the entire surface by using Kale İNCE/KALIN AKRİLİK MACUN or Kale MACUNART.
- Prime the solvent based painted surfaces or water based painted surfaces on which colour change is desired and old painted water based and very dirty surfaces with Kale SİLASTAR and new and porous surfaces with Kale SATEN ALÇI ASTARI or Kale SİLASTAR.

- After thoroughly mixing, thin JOKER PLUS MAT with clean water up to a maximum of 25% by volume and apply in two coats by using a brush, roller or spray system.
- Wait for a minimum of 2 hours before applying the final coat.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C during the application and 24 hours following the application.

### Storage

- Store between 5 - 35 °C.

### Packaging

- 2.5, 7.5 L and 15 L pails.
- 2.5 L packages packed together in 2s.



Conforms with TS 5808

## 5165 Isitut

Anti-Condensation and Isothermal Interior Wall Paint



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Composition	Acrylic emulsion based
Colours	Thousands of colours possible from a mixture of white and A, B, C bases by using Renk Bankası
Density	Approx. 0.88 g/cm <sup>3</sup>
Tinner	Water
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Recoat after 6 hours and thoroughly dry after 24 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)
Consumption	Approx. 0.06 - 0.1 L/m <sup>2</sup> per coat.
Application Tools	Brush, Roller
<b>Performance Data</b>	
TS EN 13300	
Gloss	Fully matt
Contrast Ratio	Class 2 (3,5 m <sup>2</sup> /L)
Largest Grain Size	Fine
Wet Scrub Resistance	Class 2

### Description

ISITUT - acrylic emulsion based, breathable, velvet-like matt finish, interior decorative paint - with the help of micro glass spheres, forms insulating film by working as double glass system (glass/air/glass) on applied surfaces that provides 4 times less heat transmission coefficient than other paints. ISITUT prevents condensation of water vapour on paint film and helps prevent heat loss. Micro glass spheres in its composition make its surface warmer and contribute insulation.

### Fields of Application

- On interiors, suitably prepared new mineral surfaces such as concrete, mortar, cement panel, gypsum panel etc. and on old painted surfaces, putty, glass textile and on wallpaper. It is specially designed for humid areas. It can be used as a problem solver at humid areas like kitchens and bathrooms and thanks to its warmer surface compared to other paints, it is also recommended for baby sleeping rooms.

### Properties

- The velvety matt texture gives the walls a soft, warm and smooth touch.
- Micro glass spheres in its composition make its surface warmer and contribute insulation.
- 4 times less heat transmission coefficient and micro glass beads balance ambient temperature.

- By preventing the condensation of water vapor on the wall surface and resists moisture, mold and fungus formation.
- Does not leave a roll mark, does not indicate a touch-up. It allows buildings to breathe with the ability to absorb moisture inside.
- Superior hiding power.
- High water vapour permeability, allowing the building to breathe.
- Since it does not contain solvent and is diluted with water, it does not smell and does not harm human and environmental health.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application.
- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.
- If necessary, fill the surface cracks and even the substrate with Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- To have a fine, smooth texture, smoothen the entire surface by using Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- Prime the solvent based painted surfaces or water based painted surfaces on which colour change is desired and old painted water based and very dirty surfaces with Kale

SİLASTAR and new and porous surfaces with Kale SATEN ALÇI ASTARI or Kale SİLASTAR.

- After thoroughly mixing, thin ISITUT with clean water up to a maximum of 20% by volume and apply in two or three coats by using a brush or roller.
- Wait for a minimum of 4-6 hours before applying the final coat.
- Clean the tools with water.

### Please Note

- Ensure that the air and surface temperatures should be between +5 - 35°C during the application and 24 hours following the application
- Base paints should be used after colorant addition.

### Storage

- Store between 5 - 35 °C.

### Packaging

- 2.5 L and 15 L pails.
- 2.5 L packages packed together in 2s.

## 5161 Suten

Satin, Water Based Interior Wall Paint



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Composition	Acrylic emulsion based
Colours	Thousands of colours possible from a mixture of white and A, B, C bases by using Renk Bankası
Density	Approx. 1.28 g/cm <sup>3</sup>
Tinner	Water
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Recoat after 6 hours and thoroughly dry after 24 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)
Consumption	Depending on the evenness and the porosity of the surface approximately 0.09 L/m <sup>2</sup> per coat.
Application Tools	Brush, Roller, Airless spraying equipment
<b>Performance Data</b>	
TS EN 13300	
Gloss	Semi Matt
Contrast Ratio	Class 2 (7 m <sup>2</sup> /L)
Largest Grain Size	Fine
Wet Scrub Resistance	Class 1

### Description

Acrylic emulsion based, perfectly scrub resistant, easy to clean, satin textured, silky gloss wall paint.

### Fields of Application

- On suitably prepared new mineral interior surfaces such as concrete, mortar, cement panel, gypsum panel etc., on putty and on old painted interior surfaces.

### Properties

- Satin textured, silky gloss.
- Perfectly scrub resistant.
- Suitable for frequent washing, cleans up easily and stain resistant.
- High water vapour permeability.
- Superior hiding power.
- Does not leave roller or brush marks.
- In contrast to synthetic satin paints; does not lose its gloss by time, does not yellow or crack.
- Allows painted places to be in use after a short period of time.
- Water thinnable and ecologically compatible.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry.
- Glossy and/or solvent based painted surfaces should be sanded to improve adhesion and the occurring powder should be removed.
- If necessary, the surface cracks should be filled and the substrate should be evened with Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- To have a fine satin texture, the entire surface should be smoothed by using Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- Solvent based painted surfaces or water based painted surfaces on which colour change is desired, old painted water based and very dirty surfaces should be primed with Kale SİLASTAR and new and porous surfaces with Kale SATEN ALÇI ASTARI or Kale SİLASTAR.
- SUTEN should be applied in two coats by thinning with clean water up to a maximum of 15 % by volume using a brush, roller or spray system.

### Storage

- Store between 5 - 35 °C.

### Packaging

- 2.5, 7.5 L and 15 L pails.
- 2.5 L packages packed together in 4s.

## 5181 Tavan Plastiği

Water Based Ceiling Paint



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Composition	Acrylic emulsion based
Colours	White. Tintable
Density	Approx. 1.80 g/cm <sup>3</sup>
Tinner	Water
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Recoat after 2 hours and thoroughly dry after 24 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)
Consumption	Depending on the evenness and the porosity of the surface approximately 0.14 - 0.18 L/m <sup>2</sup> per coat.
Application Tools	Brush, Roller, Airless spraying equipment
<b>Performance Data</b>	
TS EN 13300	
Gloss	Matt
Contrast Ratio	Class 2 (6 m <sup>2</sup> /L)
Largest Grain Size	Fine
Wet Scrub Resistance	Class 5

### Description

Acrylic emulsion based ceiling paint.

### Fields of Application

- On suitably prepared new mineral ceilings (concrete, mortar, cement panel etc.) or on old painted ceilings.

### Properties

- Superior hiding power.
- Excellent water vapour permeability.
- Provides matt, smooth surfaces.
- Does not blister or crack.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application.

- If necessary, fill the surface cracks and even the substrate with Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- To have a fine, smooth texture, smoothen the entire surface by using Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- Prime the solvent based painted surfaces or water based painted surfaces on which colour change is desired and old painted water based and very dirty surfaces with Kale SİLASTAR and new and porous surfaces with Kale SATEN ALÇI ASTARI or Kale SİLASTAR.
- After thoroughly mixing, thin TAVAN PLASTIĞI with clean water up to a maximum of 30% by volume and apply in two coats by using a brush, roller or spray system.
- Wait for a minimum of 2 hours before applying the final coat.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C during the application and 24 hours following the application.

### Storage

- Store between 5 - 35 °C.

### Packaging

- 17.5 and 20 kg pails



# Exterior Wall Paints and Coatings

278	PROTEKTA
279	PERFORMA NS
280	PERFORMA PURE
281	PERFORMA+
282	PERFORMA
283	JOKER PLUS EXT
284	SİLİKONATEX
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## 5111 Protekta

Ceramic Microspheres and Silicone Enhanced, Water Based Exterior Wall Paint



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Colours	Thousands of colours possible from a mixture of white and A, B, C bases by using Renk Bankası	
Composition	Acrylic emulsion based	
Tinner	Water	
Density	Approx. 1.52 g/cm <sup>3</sup>	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	Recoat after 6 hours and thoroughly dry after 24 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)	
Consumption	Depending on the evenness of the surface approximately 0.12-0.13 L/m <sup>2</sup> per coat.	
Application Tools	Brush, Roller, Airless spraying equipment	
<b>Performance Data</b>		
TS EN 1062-1 Class	Class G3	
Gloss	Class E3	
Film Thickness	Class S1	
Largest Grain Size	Class V1	
Water Vapour Transmission	Class W3	
Liquid Water Permeability	Class A0	
Crack Bridging	Class C0	
CO <sub>2</sub> Permeability		

### Description

Ceramic microspheres and silicone enhanced, water impermeable, acrylic emulsion based, long lasting, matt, exterior wall paint.

### Fields of Application

• On exterior mineral surfaces such as concrete, mortar, cement panel, etc. and on previously painted surfaces.

### Properties

- Contributes to heat insulation with its ceramic microspheres.
- Water repellent; provides rain to slide away without wetting the wall.
- Water resistant.
- Superior hiding power.
- High water vapour permeability, allowing the building to breathe.
- Long lasting, resists to UV rays, rain, heat and frost, thus retains its original properties for years without cracking blistering and fading.
- Alkali resistant.
- Water thinnable and ecologically compatible.
- Solvent free and practically odourless.

### Application

• The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.

- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.
- If necessary, fill the surface cracks and even the substrate with Kale KALIN AKRİLİK MACUN, Kale MACUNART or Kalekim TAMİRART.
- Prime new mineral and old painted surfaces with Kale ÜNİASTAR or SİLASTAR.
- After thoroughly mixing, thin PROTEKTA with clean water up to a maximum of 10% by volume and apply in two coats by using a brush, roller or spray system.
- Wait for a minimum of 6 hours before applying the final coat.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C and the surface is rain free during application and 24 hours following the application.

- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity and imminent rain or frost.
- Dampen the hot surfaces before the application.
- Not suitable for application on horizontal surfaces exposed to rain or moisture.

### Storage

- Store between 5 - 35 °C.

### Packaging

- 2.5, 7.5 and 15 L pails.
- 2.5 L packages packed together in 2s.

## 5113 Performa NS

100% Pure Acrylic, Super Elastic, Water Based Semi Matt Exterior Wall Paint



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Colours	Thousands of colours possible from a mixture of white and A, B, C bases by using Renk Bankası	
Composition	Pure acrylic emulsion based	
Tinner	Water	
Density	Approx. 1.28 g/cm <sup>3</sup>	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	Recoat after 6 hours and thoroughly dry after 24 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)	
Consumption	Depending on the evenness and the porosity of the surface; Textured Pattern: 0.350 - 0.450 L/m <sup>2</sup> per coat. Flat Finish: 0.100 - 0.160 L/m <sup>2</sup> per coat (must be applied in 2 coats)	
Application Tools	Brush, Roller	
<b>Performance Data</b>		
TS EN 1062-1 Class	Class G2	
Gloss	Class E4	
Film Thickness	Class S1	
Largest Grain Size	Class V2	
Water Vapour Transmission	Class W3	
Liquid Water Permeability	Class A5	
Crack Bridging	Class C0	
CO <sub>2</sub> Permeability		

### Description

Pure acrylic emulsion based, super elastic, fully water impermeable, long lasting, breathable, alkaline resistant, exterior textured wall and semi-matt paint.

### Fields of Application

• On exterior mineral surfaces such as concrete, mortar, cement panel, etc., and on previously painted surfaces.

### Properties

- Super elastic; covers the hair cracks on the surface up to 3.2 mm and resists to movements of the building keeping its elasticity even in low temperatures.
- Totally water impermeable; gives perfect protection against rain therefore prevents salt crystallization, frost cracks, chemical corrosion.

- Long lasting; resistant to UV rays, rain, heat and frost, thus retains its original properties for years without cracking, blistering and fading.
- High water vapour permeability, allowing buildings to breathe.
- Superior hiding power.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion.
- The surface should be sound, clean and dry. New cementitious substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.

• Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder. If necessary, fill the surface cracks and even the substrate with Kale KALIN AKRİLİK MACUN, Kale MACUNART or Kalekim TAMİRART.

- Prime new mineral and old painted surfaces with Kale ÜNİASTAR or SİLASTAR.
- After thoroughly mixing, Performa NS can be applied in two ways. According to desired pattern; A. PERFORMA NS can be applied in a single coat without thinning to obtain a textured pattern. It is dispersed by applying a lambskin roller on the surface evenly and the pattern is given by a foam roller from top to bottom.
- B. PERFORMA NS can be applied by roller in 2 coats by thinning with clean water up to a maximum 10% of its volume for flat finish.
- Wait for a minimum of 6 hours before applying the final coat.
- Clean the tools with water.

### Storage

- Store between 5 - 35°C in its unopened pail.

### Packaging

- 2.5 L and 15 L pails.
- 2.5 L packages packed together in 2s.

## 5123 Performa Pure

Pure Acrylic Emulsion, Matte, Water Based Exterior Paint



### Description

Pure acrylic water based, water impermeable, long lasting, alkali resistant, matte, exterior wall paint.

### Fields of Application

• On suitably prepared new mineral exterior surfaces such as concrete, mortar, cement panel etc. and on old painted surfaces.

### Properties

- Totally water impermeable; gives perfect protection against rain, therefore, preventing salt crystallization, frost cracks.
- Provides decorative exterior surfaces with its matte texture.
- 100% pure acrylic water based formula provides protect the surface from dirt.
- Retains its original properties for years without cracking, blistering and fading.
- High water vapour permeability.
- Alkali resistant.
- High hiding power.
- Water thinnable so that practically odourless and, ecologically compatible.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion.
- The surface should be made sound, clean and dry.
- New cementitious substrates must be cured at least 28 days before application.
- All water insulation precautions should have been taken prior to application.
- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.

Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Colours	Thousands of colours possible from a mixture of white and A, B, C bases by using Renk Bankası
Composition	Pure Acrylic Based
Tinner	Water
Density	Approx. 1.28 g/cm <sup>3</sup>
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Recoat after 6 hours and thoroughly dry after 24 hours. Lower temperatures and/or higher relative humidity will lengthen the drying process.
Consumption	Depending on the evenness and the porosity of the surface approximately 0.085-0.100 L/m <sup>2</sup> per coat.
Application Tools	Brush, Roller
<b>Performance Data</b>	
TS EN 1062-1 Class	
Gloss	Class G2
Grain Size	Class S1
Film Thickness	Class E2
Water Vapour Transmission	Class V2
Liquid Water Permeability	Class W3
Crack Bridging	Class A0
CO <sub>2</sub> Permeability	Class C0

- If necessary, fill the surface cracks and even the substrate with KALE KALIN AKRİLİK MACUN, KALE MACUNART or KALEKİM TAMİRART.
- Prime new mineral and old painted surfaces with KALE PROFESSIONAL PRIMER, KALE ANTI-ALKALI PRIMER or KALE SILASTAR.
- KALE PERFORMA PURE should be mixed thoroughly before the application.
- Thin KALE PERFORMA PURE with clean water up to a maximum of 3-4% by volume or 5% by weight and apply in two coats by using a brush or roller system.
- Wait for a minimum of 6 hours before applying the final coat.

### Please Note

- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C and the surface is rain free during the application and 24 hours following the application.

- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity and imminent rain or frost.
- Dampen the hot surfaces before the application.
- Not suitable for application on horizontal surfaces exposed to rain or moisture.
- In order to eliminate the risk of roller marks that may occur in the application, the final rolling of the paint should be done from top to bottom and in one direction.

### Storage

Store between (+5°C) – (+35°C).

### Packaging

- 2.5 L and 15 L pails.
- 2.5 L packages packed together in 2s.

## 5110 Performa+

Extra Elastic, Water Based Exterior Wall Paint



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Colours	Thousands of colours possible from a mixture of white and A, B, C bases by using Renk Bankası
Composition	Acrylic emulsion based
Tinner	Water
Density	Approx. 1.39 g/cm <sup>3</sup>
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Recoat after 6 hours and thoroughly dry after 24 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)
Consumption	Depending on the evenness of the surface approximately 0.12-0.13 L/m <sup>2</sup> per coat.
Application Tools	Brush, Roller, Airless spraying equipment
<b>Performance Data</b>	
TS EN 1062-1 Class	
Gloss	Class G3
Film Thickness	Class E2
Largest Grain Size	Class S1
Water Vapour Transmission	Class V2
Liquid Water Permeability	Class W3
Crack Bridging	Class A2
CO <sub>2</sub> Permeability	Class C0

### Description

Elastic acrylic emulsion based, extra elastic, long lasting, water impermeable, exterior matt wall paint.

### Fields of Application

- On exterior mineral surfaces such as concrete, mortar, cement panel, etc. and on previously painted surfaces.

### Properties

- Extra elastic; covers the hair cracks on the surface and resists to movements of the building and keeps its elasticity in low temperatures.
- Water impermeable; gives perfect protection against rain therefore prevents salt crystallization, frost cracks, algae and fungus formation, chemical corrosion.

- Long lasting; resists to UV rays, rain, heat and frost, thus retains its original properties for years without cracking, blistering and fading.
- High water vapour permeability, allowing buildings to breathe.
- Superior hiding power.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.

- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.
- If necessary, fill the surface cracks and even the substrate with Kale KALIN AKRİLİK MACUN, Kale MACUNART or Kalekim TAMİRART.
- Prime new mineral and old painted surfaces with Kale ÜNİASTAR or SILASTAR.
- After thoroughly mixing, thin PERFORMA+ with clean water up to a maximum of 10% by volume and apply in two coats by using a brush, roller or spray system.
- Wait for a minimum of 6 hours before applying the final coat.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C and the surface is rain free during the application and 24 hours following the application.
- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity and imminent rain or frost.
- Dampen the hot surfaces before the application.
- Not suitable for application on horizontal surfaces exposed to rain or moisture.

### Storage

- Store between 5 - 35 °C.

### Packaging

- 2.5 and 15 L pails.
- 2.5 L packages packed together in 2s.

## 5105 Performa

Elastic, Water Based Exterior Wall Paint



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Colours	Thousands of colours possible from a mixture of white and A, B, C bases by using Renk Bankası	
Composition	Acrylic emulsion based	
Tinner	Water	
Density	Approx. 1.41 g/cm <sup>3</sup>	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	Recoat after 6 hours and thoroughly dry after 24 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)	
Consumption	Depending on the evenness of the surface approximately 0.200-0.300 L/m <sup>2</sup> per coat.	
Application Tools	Brush, Roller, Airless spraying equipment	

### Description

Elastic acrylic emulsion based, water impermeable, matt, exterior wall paint.

### Fields of Application

• On suitable prepared exterior mineral surfaces such as concrete, mortar, cement panel, etc, and on previously painted surfaces.

### Properties

- Forms an elastic film; covers the hairy cracks on the surface and resists to movements of the building.
- Water impermeable; gives perfect protection against rain therefore prevents salt crystallization, frost cracks, algae and fungus formation, chemical corrosion.
- Can be applied with or without texture.
- Long lasting; resists to UV rays, rain, heat and frost, thus retains its original properties for years without cracking, blistering and fading.
- High water vapour permeability, allowing buildings to breathe.
- Superior hiding power.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

### Application

• The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.

- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.
- If necessary, fill the surface cracks and even the substrate with Kale KALIN AKRİLİK MACUN, Kale MACUNART or Kalekim TAMİRART.
- Prime new mineral and old painted surfaces with Kale ÜNIASSTAR or SİLASTAR.
- After thoroughly mixing, thin PERFORMA with clean water up to a maximum of 10% by volume and apply in two coats by using a brush, roller or spray system.
- On highly porous surfaces or when extra insulation, durability and texture is desired apply the 3rd coat of PERFORMA without thinning.
- Wait for a minimum of 6 hours before applying the final coat.
- Clean the tools with water.

- Ensure that the air and surface temperatures are above +5 °C and the surface is rain free during the application and 24 hours following the application.
- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity and imminent rain or frost.
- Dampen the hot surfaces before the application.
- Not suitable for application on horizontal surfaces exposed to rain or moisture.

### Storage

- Store between 5 - 35 °C.

### Packaging

- 2.5 and 15 L pails.
- 2.5 L packages packed together in 2s.

## 5122 Joker Plus EXT

Silicone Enhanced, Water Based Exterior Wall Paint



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Colours	Thousands of colours possible from a mixture of white and A, B, C bases by using Renk Bankası	
Composition	Acrylic emulsion based	
Tinner	Water	
Density	Approx. 1.62 g/cm <sup>3</sup>	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	Recoat after 6 hours and thoroughly dry after 24 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)	
Consumption	Depending on the evenness of the surface approximately 0.12-0.13 L/m <sup>2</sup> per coat.	
Application Tools	Brush, Roller, Airless spraying equipment	
<b>Performance Data</b>		
TS EN 1062-1 Class	Class G3	
Gloss	Class G3	
Film Thickness	Class E3	
Largest Grain Size	Class S1	
Water Vapour Transmission	Class V1	
Liquid Water Permeability	Class W2	
Crack Bridging	Class A0	
CO <sub>2</sub> Permeability	Class C0	

### Description

Acrylic emulsion based, silicone enhanced, water repellent, long lasting exterior wall paint.

### Fields of Application

• On exterior mineral surfaces such as concrete, mortar, cement panel and on previously painted surfaces.

### Properties

- Water repellent provides rain to slide away without wetting the wall.
- High water vapour permeability, allowing the building to breathe.
- Long lasting; resists to UV rays, rain, heat and frost, thus retains its original properties without cracking, blistering or fading.
- Alkali resistant.

- Superior hiding power.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application.
- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.
- If necessary, fill the surface cracks and even the substrate with Kale KALIN AKRİLİK MACUN, Kale MACUNART or Kalekim TAMİRART.
- Prime new mineral and old painted surfaces with Kale ÜNIASSTAR or SİLASTAR.

- After thoroughly mixing thin JOKER PLUS EXT with clean water up to a maximum of 10% by volume and apply in two coats by using a brush, roller or spray system.
- Wait for a minimum of 6 hours before applying the new coat.
- Clean the application tools with water.
- Ensure that the air and surface temperatures are above +5 °C and the surface is rain free during the application and 24 hours following the application.
- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity and imminent rain or frost. Dampen the hot surfaces before the application.
- All water insulation precautions should have been taken prior to application.
- Not suitable for application on horizontal surfaces exposed to rain or moisture.

### Storage

- Store between 5 - 35 °C.

### Packaging

- 2.5, 7.5 and 15 L pails.
- 2.5 L packages packed together in 2s.

## 5120 Silikonatex

Silicone Enhanced, Elastic, Water Based Textured Coating



### Description

Acrylic emulsion based, water repellent, elastic, silicone enhanced, covering the surface defects with its thick and textured film feature, long lasting, exterior and interior textured coating.

### Fields of Application

• On exterior mineral surfaces such as concrete, mortar, cement panel, etc, on previously painted surfaces and also on interior surfaces for decorative purposes.

### Properties

- Elastic; covers hair cracks on the surface and resists to movements of the building and keeps its elasticity in low temperatures.
- Water repellent provides rain to slide away without wetting the wall.
- High water vapour permeability, allowing the building to breathe.
- Long lasting; resists to UV rays, rain, heat and frost, thus retains its original properties without cracking, blistering or fading.
- Alkali resistant.
- Covers the surface defects by its thickness and texture.
- Superior hiding power.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

### Application

• The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.

• Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.

Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Colours	Thousands of colours possible from a mixture of white and A, B, C bases by using Renk Bankası	
Composition	Acrylic emulsion based	
Tinner	Water	
Texture	Roller Textured	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	Recoat after 6 hours and thoroughly dry after 24 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)	
Consumption	Depending on the evenness of the surface approximately 0.40-0.66 L/m <sup>2</sup> per coat.	
Application Tools	Brush, Roller	
<b>Performance Data</b>		
TS EN 1062-1 Class	Class E4	
Film Thickness	Class S3	
Largest Grain Size	Class S1	
Water Vapour Transmission	Class V2	
Liquid Water Permeability	Class W3	
Crack Bridging	Class A0	
CO <sub>2</sub> Permeability	Class C0	

- If necessary, fill the surface cracks and even the substrate with Kale KALIN AKRİLİK MACUN, Kale MACUNART or Kalekim TAMİRART.
- Prime new mineral and old painted surfaces with Kale ÜNİASTAR or SİLASTAR with the appropriate colour shade of the plaster.
- After thoroughly mixing, apply SİLİKONATEX in a single coat without thinning or in 2 coats by thinning with clean water up to a maximum of 10% by volume using a roller or spray system.
- Wait for a minimum of 6 hours before applying the final coat.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C and the surface is rain free during the application and 24 hours following the application.
- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity and imminent rain or frost.

- Dampen the hot surfaces before the application.
- Not suitable for application on horizontal surfaces exposed to rain or moisture.
- In order to avoid colour shade differences, use the products with the same batch number. In case that products with the different batch numbers are to be used, mix the entire necessary amount prior to application.
- In order to avoid overlapping in large areas, after work pauses, use a masking tape or employ an adequate number of applicators.

### Storage

- Store between 5 - 35 °C.

### Packaging

- 2.5 and 15 L pails.
- 2.5 L packages packed together in 2s.

## 5190 Supar

Water Based, Glossy, Wood, Metal and Masonry Paint



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Colours	Thousands of colours possible from a mixture of white and A, B, C bases by using Renk Bankası	
Composition	100% Acrylic emulsion based	
Tinner	Water	
Density	Approx. 1.15 g/cm <sup>3</sup>	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	Recoat after 6 hours and thoroughly dry after 24 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)	
Consumption	Approx. 0.04 - 0.06 L/m <sup>2</sup> in one coat, depending on the evenness and the porosity of the surface	
Application Tools	Brush, Roller, Airless spraying equipment.	
<b>Performance Data</b>		
TS EN 1062-1 Class	Class G1	
Gloss	Class E2	
Film Thickness	Class S1	
Largest Grain Size	Class V2	
Water Vapour Transmission	Class W3	
Liquid Water Permeability	Class A0	
Crack Bridging	Class C0	
CO <sub>2</sub> Permeability	Class C0	

### Description

Acrylic emulsion based, glossy, long lasting, decorative, exterior and interior wood, metal and wall paint.

### Fields of Application

• On old or new exterior and interior mineral surfaces such as concrete, mortar, cement panel etc., on metal and wood.

### Properties

- Does not lose its gloss with time, does not yellow or crack.
- Allow a second coat application within 3 - 6 hours.
- With a wide range of application; can be applied to interior and exterior wood, metal and masonry surfaces.

- Durable to UV and high temperature; since it is not solvent based, it does not yellow, crack and lose its gloss by time.
- High water vapour permeability, allowing the building to breathe.
- Water impermeable; wash and scrub resistance.
- Alkali resistant.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

### Application

• The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.

- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.
- If necessary, fill the surface cracks and even the substrate with Kale İNCE/KALIN AKRİLİK MACUN, Kale MACUNART or Kalekim TAMİRART.
- To have a fine silky texture, smoothen the entire surface by using Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- Prime the surfaces on which SUPAR is to be applied with a suitable primer, for timber and mineral surfaces prime with SUPAR thinned with clean water up to a maximum of 10-15% by volume and for metal surfaces with an anti-rusting primer.
- Apply SUPAR without thinning in 2 coats using a brush, roller or spray system.
- Wait for a minimum of 6 hours before applying the final coat.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C and the surface is rain free during application and 24 hours following the application.
- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity and imminent rain or frost.
- Dampen the hot surfaces before the application.
- Not suitable for application on horizontal surfaces exposed to rain or moisture.
- The entire dryness is imperative to prevent the sticking of the new painted contact metal and wood surfaces.

### Storage

- Store between 5 - 35 °C.

### Packaging

- 0.75, 2.5, 7.5 and 15 L pails.
- 0.75 L and 2.5 L packages packed together in 2s.



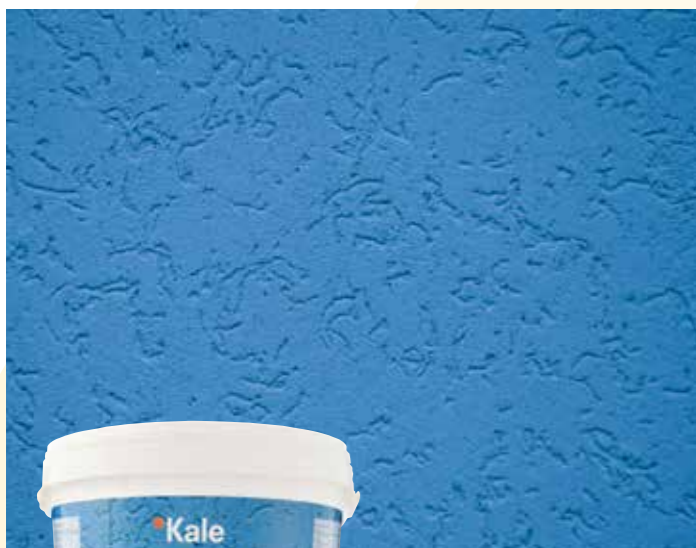


# Decorative Plasters

- 288 COLORIT
- 289 DEKOR PLUS
- 290 GRENART MICRO
- 291 GRENART MÍDI
- 292 RENOTEX PLUS
- 293 DREWA
- 294 MÍKRO DREWA

## 5001 Colorit

Silicone Enhanced, Fine, Line Textured Ready Mixed Plaster



### Description

Acrylic emulsion based, silicone enhanced, fine, line textured, trowel applied, ready mixed interior and exterior plaster.

### Fields of Application

• On exterior mineral surfaces such as concrete, mortar, cement panel, etc., on previously painted surfaces and also on interior surfaces for decorative purposes.

### Properties

- High water vapour permeability, allowing the building to breathe.
- Long lasting; resists to UV rays, rain, heat and frost, thus retains its original properties for years without cracking, blistering and fading.
- Alkali resistant.
- Horizontal, vertical or circular line textures can be obtained by movements of trowel.
- Water resistant.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.
- Prime the surface with Kale SİLASTAR or Kale ÜNİASTAR in the same colour shade of the plaster.
- Mix COLORIT thoroughly, if required add clean water until it reaches application viscosity.
- Spread COLORIT evenly on the surface in the thickness of the grain size with plastic trowel.

Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Colours	Available in 234 colours of the exterior colour chart. Tintable	
Composition	Acrylic emulsion based	
Tinner	Water	
Texture	Line textured	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	Surface dry after 24 hours and thoroughly dry after 2 - 3 days (Lower temperatures and/or higher relative humidity will lengthen the drying process.)	
Consumption	Depending on the evenness of the surface approximately 2.3 - 2.5 kg/m <sup>2</sup>	
Application Tools	Steel and plastic trowel	
<b>Performance Data</b>		
TS EN 1062-1 Class	Class E5	
Film Thickness	Class S4	
Largest Grain Size	Class S4	
Water Vapour Transmission	Class V1	
Liquid Water Permeability	Class W3	
Crack Bridging	Class A0	
CO <sub>2</sub> Permeability	Class C0	

- Texture by moving the trowel horizontally, vertically and roundly depending on the desired texture.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C and the surface is rain free during the application and 24 hours following the application.
- Do not apply in extremely hot weather under glaring sun, during strong wind, fog, high relative humidity, imminent rain or frost.
- Hot surfaces should be dampened before application.
- In order to avoid differences in shades of color, products with the same charge number should be used. In the event products with different charge numbers are to be used, the entire required amount should be mixed prior to application.

- In order to avoid overlapping in large areas or after work pauses, masking tape should be used or an adequate number of applicators should be employed to apply the plaster wet-on-wet without interruptions.

### Storage

- Store between 5 - 35 °C.

### Packaging

- Available in 25 kg pails.

## 5006 Dekor Plus

Silicone Enhanced, Elastic, Line Textured Ready Mixed Plaster



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Colours	Available in 234 colours of the exterior colour chart. Tintable	
Composition	Acrylic emulsion based	
Tinner	Water	
Texture	Line textured	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	Surface dry after 24 hours and thoroughly dry after 2 - 3 days (Lower temperatures and/or higher relative humidity will lengthen the drying process.)	
Consumption	Depending on the evenness of the surface approximately 3.3 - 3.5 kg/m <sup>2</sup>	
Application Tools	Plastic trowel	
<b>Performance Data</b>		
TS EN 1062-1 Class	Class E5	
Film Thickness	Class S4	
Largest Grain Size	Class S4	
Water Vapour Transmission	Class V2	
Liquid Water Permeability	Class W3	
Crack Bridging	Class A0	
CO <sub>2</sub> Permeability	Class C0	

### Description

Acrylic emulsion based, elastic, line textured, trowel applied, silicone enhanced, coarse, ready mixed interior and exterior plaster.

### Fields of Application

- On exterior mineral surfaces such as concrete, mortar, cement panel, etc., on previously painted surfaces and also on interior surfaces for decorative purposes.

### Properties

- Elastic; covers the hair cracks on the surface and resists to movements of the building.
- Water repellent; provides rain to slide away without wetting the wall.
- High water vapour permeability allowing the building to breathe.

- Long lasting; resists to UV rays, rain, heat and frost, thus retains its original properties for years without cracking, blistering and fading.
- Alkali resistant.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.
- Prime the surface with Kale SİLASTAR or Kale ÜNİASTAR in the same colour shade of the plaster.
- Mix DEKOR PLUS thoroughly, if required add clean water until it reaches application viscosity.

- Spread DEKOR PLUS evenly on the surface in the thickness of the grain size with plastic trowel.
- Texture by moving the trowel horizontally, vertically and roundly depending on the desired texture.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C and the surface is rain free during the application and 24 hours following the application.
- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity and imminent rain or frost.
- Hot surfaces should be dampened before application.
- In order to avoid differences in shades of color, products with the same charge number should be used. In the event products with different charge numbers are to be used, the entire required amount should be mixed prior to application.
- In order to avoid overlapping in large areas or after work pauses, masking tape should be used or an adequate number of applicators should be employed to apply the plaster wet-on-wet without interruptions.

### Storage

- Store between 5 - 35 °C.

### Packaging

- Available in 25 kg pails.

## 5024 Grenart Micro

Silicone Enhanced, Elastic, Ready Mixed Plaster



### Description

Acrylic emulsion based, sprayed texture, trowel applied, fine, ready mixed exterior and interior plaster.

### Fields of Application

• On exterior mineral surfaces such as concrete, mortar, cement panel, etc, on previously painted surfaces and also on interior surfaces for decorative purposes.

### Properties

- Elastic; covers the hair cracks on the surface and resists to movements of the building.
- Water repellent; provides rain to slide away without wetting the wall.
- High water vapour permeability allowing the building to breathe.
- Long lasting; resists to UV rays, rain, heat and frost, thus retains its original properties for years without cracking, blistering and fading.
- Alkali resistant.
- Water resistant.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion.
- The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.
- Prime the surface with Kale SİLASTER or Kale ÜNİASTER in the same colour shade of the plaster.

Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Colours	Available in 234 colours of the exterior colour chart. Tintable	
Composition	Acrylic emulsion based	
Tinner	Water	
Texture	Fine texture	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	Surface dry after 24 hours and thoroughly dry after 2 - 3 days (Lower temperatures and/or higher relative humidity will lengthen the drying process.)	
Consumption	Depending on the evenness of the surface approximately 2.2 - 2.8 kg/m <sup>2</sup>	
Application Tools	Steel trowel	
<b>Performance Data</b>		
TS EN 1062-1 Class	Class E5	
Film Thickness	Class S3	
Largest Grain Size	Class S3	
Water Vapour Transmission	Class V2	
Liquid Water Permeability	Class W3	
Crack Bridging	Class A0	
CO <sub>2</sub> Permeability	Class C0	

- Mix GRENART MICRO thoroughly before application until it is homogeneous.
- Spread GRENART MICRO evenly on the surface using a stainless steel trowel and texture immediately by plastic trowel.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C and the surface is rain free during application and 24 hours following the application.
- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity, imminent rain or frost.
- Hot surfaces should be dampened before application.
- In order to avoid colour shade differences, products with the same charge number should be used. In the event products with different charge numbers are to be used, the entire required amount should be mixed prior to application.

- In order to avoid overlapping in large areas or after work pauses, masking tape should be used or an adequate number of applicators should be employed to apply the plaster wet-on-wet without interruptions.

### Storage

- Store between 5 - 35 °C.

### Packaging

- Available in 25 kg pails.



Complies with TS 7847

## 5026 Grenart Midi

Silicone and Fiber Enhanced, Elastic, Ready Mixed Plaster



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Colours	Available in 234 colours of the exterior colour chart. Tintable	
Composition	Acrylic emulsion based	
Tinner	Water	
Texture	Thick textured	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	Surface dry after 24 hours and thoroughly dry after 2 - 3 days (Lower temperatures and/or higher relative humidity will lengthen the drying process.)	
Consumption	Depending on the evenness of the surface approximately 2.4 - 2.9 kg/m <sup>2</sup>	
Application Tools	Steel trowel	
<b>Performance Data</b>		
TS EN 1062-1 Class	Class E5	
Film Thickness	Class S4	
Largest Grain Size	Class S4	
Water Vapour Transmission	Class V2	
Liquid Water Permeability	Class W3	
Crack Bridging	Class A0	
CO <sub>2</sub> Permeability	Class C0	

### Description

Acrylic emulsion based, silicone and fiber enhanced, elastic, coarse, ready mixed exterior and interior plaster.

### Fields of Application

- On exterior mineral surfaces such as concrete, mortar, cement panel, etc., on previously painted surfaces and also on interior surfaces for decorative purposes.

### Properties

- Elastic; covers the hair cracks on the surface and resists to movements of the building.
- Water repellent; provides rain to slide away without wetting the wall.
- High water vapour permeability allowing the building to breathe.

- Long lasting; resists to UV rays, rain, heat and frost, thus retains its original properties for years without cracking, blistering and fading.
- Water resistant.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.
- Prime the surface with Kale SİLASTER or Kale ÜNİASTER in the same colour shade of the plaster.

- Mix GRENART MIDI thoroughly before application until it is homogeneous.
- Spread GRENART MIDI evenly on the surface using a stainless steel trowel and texture immediately by plastic trowel.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C and the surface is rain free during application and 24 hours following the application.
- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity, imminent rain or frost.
- Hot surfaces should be dampened before application.
- In order to avoid differences in shades of colour, products with the same charge number should be used. In the event products with different charge numbers are to be used, the entire required amount should be mixed prior to application.
- In order to avoid overlapping in large areas or after work pauses, masking tape should be used or an adequate number of applicators should be employed to apply the plaster wet-on-wet without interruptions.

### Storage

- Store between 5 - 35 °C.

### Packaging

- Available in 25 kg pails.



Complies with TS 7847

## 5055 Renotex Plus

Silicone Enhanced, Roller Applied Ready Mixed Plaster



### Description

Acrylic emulsion based, roller applied, fine, silicone enhanced, exterior and interior ready mixed plaster that can be applied in different thicknesses and textures by the use of a trowel or roller.

### Fields of Application

• On exterior mineral surfaces such as concrete, mortar, cement panel, etc, on previously painted surfaces and also on interior surfaces for decorative purposes.

### Properties

- Water repellent; causes rain to slide away without wetting the wall.
- High water vapour permeability allowing the building to breathe.
- Long lasting; resists to UV rays, rain, heat and frost, thus retains its original properties for years without cracking, blistering and fading.
- Alkali resistant.
- Various decorative textures obtained by the use of different thinning ratios and different rollers.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

### Application

• The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.

• Prime the surface with Kale SILASTAR or Kale ÜNIASTAR in the same colour shade of the plaster.

• Mix RENOTEX PLUS thoroughly before application until it gets homogeneous.

Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Colours	Available in 234 colours of the exterior colour chart. Tintable	
Composition	Acrylic emulsion based	
Tinner	Water	
Texture	Roller textured	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	Surface dry after 24 hours and thoroughly dry after 2 - 3 days (Lower temperatures and/or higher relative humidity will lengthen the drying process.)	
Consumption	Depending on desired texture; Fine Textures: 1.0 - 1.2 kg/m <sup>2</sup> Coarse Textures: 1.0 - 2.0 kg/m <sup>2</sup> Flat Textures: 1.7 - 2.0 kg/m <sup>2</sup>	
Application Tools	Trowel, Roller	
<b>Performance Data</b>		
TS EN 1062-1 Class	Class E5	
Film Thickness	Class S3	
Largest Grain Size	Class S3	
Water Vapour Transmission	Class V1	
Liquid Water Permeability	Class W3	
Crack Bridging	Class A0	
CO <sub>2</sub> Permeability	Class C0	

- Thin with clean water by 10% for flat texture and 5% for fine texture. Do not thin for coarse textures.
- Spread RENOTEX PLUS evenly on to the surface with a plastic trowel and texture with a saturated roller or apply directly by using a saturated roller.
- Keep thinning ratio constant throughout the application to apply RENOTEX PLUS onto the surface.
- Start texturing before RENOTEX PLUS begins drying (at most after 5 minutes in very hot days).
- Clean the tools with water.
- Ensure that the air and surface temperature are above +5 °C and the surface is rain free during application and 24 hours following the application.
- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity, imminent rain or frost.
- Hot surfaces should be dampened before application.

- In order to avoid colour shade differences products with the same charge number should be used. In the event products with different charge numbers are to be used, the entire required amount should be mixed prior to application.
- In order to avoid overlapping in large areas or after work pauses, masking tape should be used or an adequate number of applicators should be employed to apply the plaster wet-on-wet without interruptions.

### Storage

- Store between 5 - 35 °C.

### Packaging

- Available in 25 kg pails.

## 5030 Drewa

Natural Marble Chip Plaster



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Colours	Available in 30 original colours	
Composition	Acrylic emulsion based	
Tinner	Water	
Texture	Contains coarse, natural, colored marble chips	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	Surface dry after 24 hours and thoroughly dry after 2 - 3 days (Lower temperatures and/or higher relative humidity will lengthen the drying process.)	
Consumption	Depending on the evenness of the surface approximately 4.0 - 5.0 kg/m <sup>2</sup>	
Application Tools	Steel trowel	
<b>Performance Data</b>		
TS EN 1062-1 Class	Class E5	
Film Thickness	Class S4	
Largest Grain Size	Class S4	
Water Vapour Transmission	Class V2	
Liquid Water Permeability	Class W3	
Crack Bridging	Class A0	
CO <sub>2</sub> Permeability	Class C0	

### Description

Acrylic emulsion based, coarse, ready mixed, interior and exterior, natural coloured marble chip plaster.

### Fields of Application

• On exterior mineral surfaces such as concrete, mortar, cement panel, etc., on previously painted surfaces and also on interior surfaces for decorative purposes.

### Properties

- Long lasting; resists to UV rays, rain, heat and frost, thus retains its original properties for years without cracking, blistering and fading.
- High water vapour permeability allowing the building to breathe.
- Alkali resistant. Water resistant.
- Decorative with its natural texture and 24 colours.

- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

### Application

• The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion.

• The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.

• Prime the surface with Kale SILASTAR or Kale ÜNIASTAR in the same colour shade of the plaster.

• Mix DREWA thoroughly until it gets homogeneous.

• Spread DREWA evenly on to the surface in the same thickness of the marble chips by using a stainless steel trowel.

- Clean the tools with water.
- Ensure that the air and surface temperature are above +5 °C and the surface is rain free during the application and 24 hours following the application.
- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity, imminent rain or frost.
- Hot surfaces should be dampened before application.
- In order to avoid colour shade differences products with the same charge number should be used. In the event products with different charge numbers are to be used, the entire required amount should be mixed prior to application.
- In order to avoid overlapping in large areas or after work pauses, masking tape should be used or an adequate number of applicators should be employed to apply the plaster wet-on-wet without interruptions.

### Storage

- Store between 5 - 35 °C.

### Packaging

- Available in 25 kg pails.

## 5035 Mikro Drewa

### Natural Marble Chip Plaster



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Colours	Available in 30 original colours	
Composition	Acrylic emulsion based	
Tinner	Water	
Texture	Contains fine, natural, colored marble chips	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	Surface dry after 24 hours and thoroughly dry after 2 - 3 days (Lower temperatures and/or higher relative humidity will lengthen the drying process.)	
Consumption	Depending on the evenness of the surface approximately 2.5 - 2.9 kg/m <sup>2</sup>	
Application Tools	Stainless steel trowel	
<b>Performance Data</b>		
TS EN 1062-1 Class	Class E5	
Film Thickness	Class S3	
Largest Grain Size	Class V2	
Water Vapour Transmission	Class W3	
Liquid Water Permeability	Class A0	
Crack Bridging	Class C0	
CO <sub>2</sub> Permeability	Class C0	

#### Description

Acrylic emulsion based, fine, ready mixed, interior and exterior surfaces natural coloured marble chip plaster.

#### Fields of Application

- On exterior mineral surfaces such as concrete, mortar, cement panel, etc., on previously painted surfaces and also on interior surfaces for decorative purposes.

#### Properties

- Long lasting; resists to UV rays, rain, heat and frost, thus retains its original properties for years without cracking, blistering and fading.
- High water vapour permeability allowing the building to breathe.
- Alkali resistant.
- Water resistant.
- Decorative with its natural texture and 24 colours.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

#### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.
- Prime the surface with Kale SILASTAR or Kale ÜNİASTAR in the same colour shade of the plaster.
- Mix MİKRO DREWA thoroughly until it gets homogeneous.

- Spread MİKRO DREWA evenly on to the surface in the same thickness of the marble chips by using a stainless steel trowel.
- Clean the tools with water.
- Ensure that the air and surface temperature are above +5 °C and the surface is rain free during application and 24 hours following the application.
- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity, imminent rain or frost.
- Hot surfaces should be dampened before application.
- In order to avoid colour shade differences products with the same charge number should be used. In the event products with different charge numbers are to be used, the entire required amount should be mixed prior to application.

- In order to avoid overlapping in large areas or after work pauses, masking tape should be used or an adequate number of applicators should be employed to apply the plaster wet-on-wet without interruptions.

#### Storage

- Store between 5 - 35 °C.

#### Packaging

- Available in 25 kg pails.



### Texture and Colors of Drowa

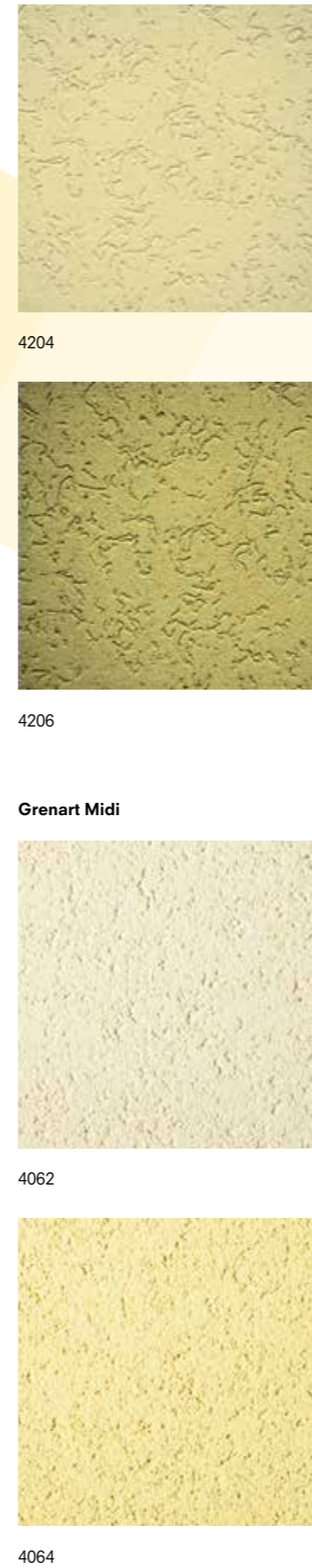


### Texture and Colors of Mikro Drowa



### Textures of Plasters

#### Colorit



#### Dekor Plus



#### Renotex Plus



#### Grenart Midi



#### Grenart Micro



#### Silikonatex





# Surface Preparation Materials

- 300 ANTI ALKALI PRIMER
- 301 TRANSITION PRIMER
- 302 SİLASTAR
- 303 ÜNİASTAR
- 304 CONCENTRATED PRIMER
- 305 İNCE AKRİLİK MACUN
- 306 KALIN AKRİLİK MACUN
- 307 SATEN ALÇI ASTARI
- 308 MACUNART

## 5315 Anti Alkali Primer

Efflorescence-Resistant Facade Paint Primer



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Composition	Acrylic emulsion emulsion
Colours	White and 19 colours and can be coloured
Density	Approx. 1.43 g/cm <sup>3</sup>
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Surface dry in min 3 hours, complete drying min 5 hours, application of the top coat min 3 hours. Lower temperatures and/or higher relative humidity will lengthen the drying process.
Consumption	Depending on the evenness and the porosity of the surface approximately 0.1-0.12 L/m <sup>2</sup>
Application Tools	Spatula, Brush, Spray gun

### Description

Water and Acrylic polymer based, high alkali resistant, ready to use primer that strengthens the adhesion of all water based interior and exterior coating materials and increases the strength of the topcoat and shortens the time of the top coat application.

### Fields of Application

- On exterior mineral surfaces such as concrete, mortar, cement panel, etc., also on painted surfaces.

### Properties

- Offers best protection against efflorescence caused by high alkali level of the surfaces.
- Shortens the time of top coat application on mineral surfaces.
- Deeply penetrates through the substrate.
- Reinforces the applied substrates, increases the adhesion of top coat.
- Has high hiding power.
- Decreases paint consumption by reducing the absorbency of the substrate.
- Solvent free and practically odourless.
- Easy to apply thanks to its special filling structure.
- Water thinnable and ecologically compatible.

### Application

- The surface must be cleaned off from dust, dirt, oil and old blistered coatings that may prevent good adhesion.
- The surface should be sound and dry. All water-related insulation measures of the building must be taken beforehand.
- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the residue powder.
- If necessary, fill the surface cracks and even the substrate surface with Kale İNCE AKRİLİK MACUN or Kalekim MACUNART.
- Kale ANTI-ALKALİ PRİMER should be mixed thoroughly before the application.
- Kale ANTI-ALKALİ PRİMER is a ready-to-use product but after mixing, if necessary Kale ANTI-ALKALİ PRİMER can be thinned with clean water maximum 5% by volume and apply in single coat by using a brush, roller or spray system.
- Wait for a minimum of 3 hours before top coat application.
- Ensure that surface and ambient temperatures are minimum (+5°C) and maximum (+35°C) during and 24 hours following the application.

- Application tools should be washed with water immediately after use.
- Application should not be made in very hot weather, under direct sun, surfaces exposed to water or rain and, in high relative humidity.
- Extremely hot surfaces should be moistened before application.

### Storage

- Store between (+5°C) - (+35°C).

### Packaging

- 2.5 L and 15 L plastic pails.
- 2.5 L packages packed together in 2s.

## 5336 Transition Primer

Water Based Primer for Solvent / Water Based Painted Surfaces



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Colours	White
Composition	Acrylic emulsion based
Tinner	Water
Density	Approx. 1.68 g/cm <sup>3</sup>
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Ready for the application of the final coating after 6 hours when applied on water based paint and 24 hours when applied on solvent based paint. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)
Consumption	Depending on the evenness and the porosity of the surface approximately 0.14-0.20 kg/m <sup>2</sup>
Application Tools	Brush, Roller, Airless Spraying

### Description

Acrylic emulsion based primer, especially used for the transfer from solvent based paint to water based paint, with high penetration capability for priming the surfaces prior to any type of water based decorative interior and exterior paint.

### Fields of Application

Prior to emulsion-based interior and exterior paint application on all kinds of porous, highly absorbent surfaces such as concrete, aerated concrete blocks, brick, gypsum panel, plaster and putty etc., and on old painted surfaces.

### Properties

- When used to transfer from solvent based paint to water based paint, it provides a more vivid, brighter and smoother wall surface.
- It enables greater adhesion of the top coat coating material to the surface by ensuring that the dusty areas on the surface are connected to the surface.
- Water thinnable, ecologically compatible and odourless.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion.
- The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application.
- The surface should be sound and dry. All water-related insulation measures of the building must be taken beforehand.
- If necessary, fill the surface cracks and even the substrate surface with KALE İNCE/KALIN AKRİLİK MACUN, KALE MACUNART or KALEKİM TAMIRART.
- KALE TRANSITION PRİMER should be mixed thoroughly before the application.
- Thin KALE TRANSITION PRİMER with clean water up to maximum of 5% by volume and apply in a single or two coats using a brush, roller or spray system.
- For applications to be made on water based wall paint, at least 6 hours, and for applications to be made on solvent based wall paints, after 24 hours, the finish coat should be applied.

### Please Note

- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5°C and the surface is rain-free during the application and 24 hours following the application.
- Do not apply in extremely hot weather, under the glaring sun, during strong wind, fog, high relative humidity and imminent rain or frost.
- Dampen the hot surfaces before the application.
- Not suitable for application on horizontal surfaces exposed to rain or moisture.

### Storage

Store between (+5°C) - (+35°C).

### Packaging

- 3.5 kg and 20 kg plastic pails.



## 5335 Silastar

### Silicone Enhanced Primer



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Colors	Available in white and 19 colors. Tintable
Composition	Acrylic emulsion based
Thinner	Water
Density	Approx. 1.51 g/cm <sup>3</sup>
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Ready for the application of the final coating after 6 hours. Lower temperatures and/or higher relative humidity will lengthen the drying process
Consumption	Depending on the evenness and the porosity of the surface approximately 0.090 L/m <sup>2</sup>
Application Tools	Brush, roller, airless spraying equipment

#### Description

Silicone enhanced, acrylic emulsion based, pigmented primer with a high penetration and water proofing power for priming the surfaces on which any type of water based decorative coating will be applied.

#### Fields of Application

• Prior to emulsion based coating application on all kinds of porous, highly absorbent surfaces like concrete, plaster, gypsum, gypsum panel and putty etc., and on old painted surfaces.

#### Properties

- Silicone content enables deep penetration under the surface reducing water absorption.
- Pigmented; provides hiding.
- Reinforces the substrates, increases the adhesion of surface coating.
- Decreases paint consumption by decreasing the absorbency of the substrate.
- Solvent free and practically odourless,
- Water thinnable and ecologically compatible.

#### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. Cementitious substrates must be cured. All water insulation precautions should have been taken prior to application.
- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.
- If necessary, the surface cracks should be filled and the substrate should be evened with Kale İNCE / KALIN AKRİLİK MACUN, Kale MACUNART or Kalekim TAMİRART.
- Thin Kale SİLASTAR with clean water up to a maximum of 10% by volume and apply in a single coat using a brush, roller or spray system.
- Wait for a minimum of 6 hours before applying the final coat.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above 5°C and the surface is rain free during application and 24 hours following the application.

- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity and imminent rain or frost.
- Dampen the hot surfaces before the application.
- Not suitable for application on horizontal surfaces exposed to rain or moisture.

#### Storage

- Store between 5°C-35°C in its unopened pail.

#### Packaging

- 2.5 L, 7.5 L and 15 L pails
- 2.5 L packages packed together in 2s.

## 5310 Üniastar

### Plaster and Paint Primer



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Colors	Available in white and 19 colors, Tintable
Composition	Acrylic emulsion based
Thinner	Water
Density	Approx. 1.69 g/cm <sup>3</sup>
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Ready for the application of the final coating after 6 hours. Lower temperatures and/or higher relative humidity will lengthen the drying process.
Consumption	Depending on the evenness and the porosity of the surface approximately 0.175 kg/m <sup>2</sup>
Application Tools	Brush, roller, airless spraying equipment

#### Description

Acrylic emulsion based, pigmented primer, suitable for priming the surfaces on which any type of water based decorative coatings will be applied.

#### Fields of Application

• Prior to emulsion based coating application on all kinds of exterior mineral surfaces such as concrete, plaster and cement panel etc., and on old painted surfaces.

#### Properties

- Fills hair cracks, reinforces the substrates, increases the adhesion of surface coating.
- Pigmented; provides hiding.
- Reinforces the substrates, increases the adhesion of surface coating.
- Decreases paint consumption by decreasing the absorbency of the substrate.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

#### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. Cementitious substrates must be cured. All water insulation precautions should have been taken prior to application. Cementitious substrates must be cured.
- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.
- If necessary, the surface cracks should be filled and the substrate should be evened with Kale İNCE / KALIN AKRİLİK MACUN, Kale MACUNART or Kalekim TAMİRART.
- Thin with clean water ÜNİASTAR with clean water up to 1/1 ratio in volume mix thoroughly and apply using a brush, roller or spray system. For application on gypsum panels or putty surfaces thin at a ratio of 1/2-1/3 by volume to ensure the best possible satin texture.

- Wait for a minimum of 6 hours before applying the final coat.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above 5°C and the surface is rain free during application and 24 hours following the application.
- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity and imminent rain or frost.
- Dampen the hot surfaces before the application.
- Not suitable for application on horizontal surfaces exposed to rain or moisture.

#### Storage

- Store between 5°C-35°C in its unopened pail.

#### Packaging

- 4 kg and 25 kg pails
- 4 kg packages packed together in 2s.

## 5334 Concentrated Primer

1/7 Diluted Water Based Concentrated Primer



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Composition	Acrylic Emulsion Based
Colours	White
Thinner	Water
Density	Approx. 1.0 g/cm <sup>3</sup>
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+30°C)
Drying Time	Ready for the application of the final coating after 6 hours (Lower temperatures and/or higher relative humidity will lengthen the drying process.)
Consumption	Depending on the evenness and the porosity of the surface approximately 0.010-0.017 L/m <sup>2</sup>
Application Tools	Brush, Roller, Airless Spraying

### Description

Acrylic emulsion based, concentrated primer with high penetration capability for priming the surfaces prior to any type of water based decorative interior paint.

### Fields of Application

Prior to emulsion-based interior paint application on all kinds of porous, highly absorbent surfaces such as concrete, aerated concrete blocks, brick, gypsum panel, plaster and putty etc., and on old painted surfaces.

### Properties

- Decreases the absorbency of the substrate.
- Reinforces the applied substrates, increases the adhesion of the final coat.
- Water thinnable, ecologically compatible and odourless.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion.
- The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application.
- The surface should be sound and dry. All water-related insulation measures of the building must be taken beforehand.
- If necessary, fill the surface cracks and even the substrate surface with KALE İNCE/KALIN AKRİLİK MACUN, KALE MACUNART or KALEKİM TAMIRART.
- KALE CONCENTRATED PRIMER should be mixed thoroughly before the application.
- Thin KALE TRANSITION PRIMER with clean water in the ratio of 1/7 (1 unit of KALE CONCENTRATED PRIMER is thinned 7 units of clean water), apply in a single or two coats using a brush, roller or spray system.
- Wait for at least 6 hours, before the finish coat application.

### Please Note

- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5°C and the surface is rain-free during the application and 24 hours following the application.
- Do not apply in extremely hot weather, under the glaring sun, during strong wind, fog, high relative humidity and imminent rain or frost.
- Dampen the hot surfaces before the application.
- Not suitable for application on horizontal surfaces exposed to rain or moisture.

### Storage

Store between (+5°C) - (+35°C).

### Packaging

- 0.75 L, 2,5 L and 15 L plastic pails.

## 5510 İnce Akrilik Macun

Water Based, Fine, Surface Smoothing Putty



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Colours	Off White
Composition	Acrylic copolymer emulsion
Tinner	Water
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Thoroughly dry after 24 hours. Lower temperatures and/or higher relative humidity will lengthen the drying process.
Consumption	Depending on the evenness and the porosity of the surface approximately 0.5 - 1.5 kg/m <sup>2</sup>
Application Tools	Spatula, Elastic stainless steel trowel.

### Description

Acrylic copolymer emulsion based surface smoothing putty formulated at an optimum thickness to cover the common surface defects of interiors.

### Fields of Application

- Surface smoothing putty; for smoothing the concrete and cementitious plastered rough surfaces, for filling up the hair cracks and for covering the surface defects appeared due to removal of blistered old coating.

### Properties

- Forms very strong, non-dusting and smooth surfaces.
- Resistant to moisture.
- Does not prevent the water vapour permeability of the wall.
- Decreases paint consumption by decreasing the surface porosity.
- Easy to apply, ready to use.
- High filling capacity, creates a surface, at maximum, in two coats.
- Easily sandable.
- Water based and ecologically compatible.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion.
- The surface should be made sound, clean and dry. Cementitious substrates must be cured. All water insulation precautions should have been taken prior to application.
- To repair cracks larger than 3 mm apply Kale KALIN AKRİLİK MACUN first.
- Prime new and porous or very absorbent surfaces with SATEN ALÇI ASTARI or SILASTAR.
- After thoroughly mixing, apply İNCE AKRİLİK MACUN in one or two coats by a spatula or an elastic steel trowel depending on the roughness of the surface.
- Sand the surface to remove the spatula marks after 24 hours from the application.
- Before the application of the coating material on putty, prime the surface with Kale ÜNİASTAR or SILASTAR.

- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C and the surface is rain free during the application and 24 hours following the application.
- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity and imminent rain or frost. Dampen the hot surfaces before the application.

### Storage

- Store between 5 - 35 °C.

### Packaging

- 5 kg and 25 kg pails.
- 5 kg packages packed together in 2s.

## 5520 Kalın Akrilik Macun

Water Based, Thick, Surface Smoothing Putty



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Colours	Off White
Composition	Acrylic copolymer emulsion
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Thoroughly dry after 24 hours. Lower temperatures and/or higher relative humidity will lengthen the drying process.
Consumption	Depending on the evenness and the porosity of the surface approximately 1.2 - 2.2 kg/m <sup>2</sup>
Application Tools	Spatula, Elastic stainless steel trowel.

### Description

Acrylic copolymer emulsion based surface smoothing putty formulated at an optimum thickness to cover the common surface defects of exteriors.

### Fields of Application

• Surface smoothing putty; for smoothing the concrete and cementitious, plastered rough surfaces, for filling up the hair cracks and for covering the surface defects appeared due to removal of blistered old coating.

### Properties

- Forms very strong, non-dusting and smooth surfaces.
- Resistant to moisture.
- Does not prevent the water vapour permeability of the wall.
- Decreases paint consumption by decreasing the surface porosity.
- Easy to apply, ready to use.
- High filling capacity, creates a surface, at maximum, in two coats.
- Easily sandable.
- Water based and ecologically compatible.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. Cementitious substrates must be cured. All water insulation precautions should have been taken prior to application.
- Prime new and porous or very absorbent surfaces with Kale SATEN ALÇI ASTARI.
- For exterior uses, prepare a mixture of water and white cement, at 20% weight of KALIN AKRİLİK MACUN, then add it to KALIN AKRİLİK MACUN. Mixture should be used in 1 hour.
- After thoroughly mixing, apply Kale İNCE AKRİLİK MACUN in one or two coats by a spatula or an elastic steel trowel depending on the roughness of the surface.
- Apply Kale KALIN AKRİLİK MACUN or MACUNART after the coating of KALIN AKRİLİK MACUN or MACUNART if more smoothness is required.
- Sand the surface to remove the spatula marks after 24 hours from the application.

- Before the application of the coating material on putty, prime the surface with Kale ÜNİASTAR or SİLASTAR.
- Clean the tools with water. Ensure that the air and surface temperatures are above +5 °C and the surface is rain free during application and 24 hours following the application.
- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity and imminent rain or frost.
- Dampen the hot surfaces before the application.

### Storage

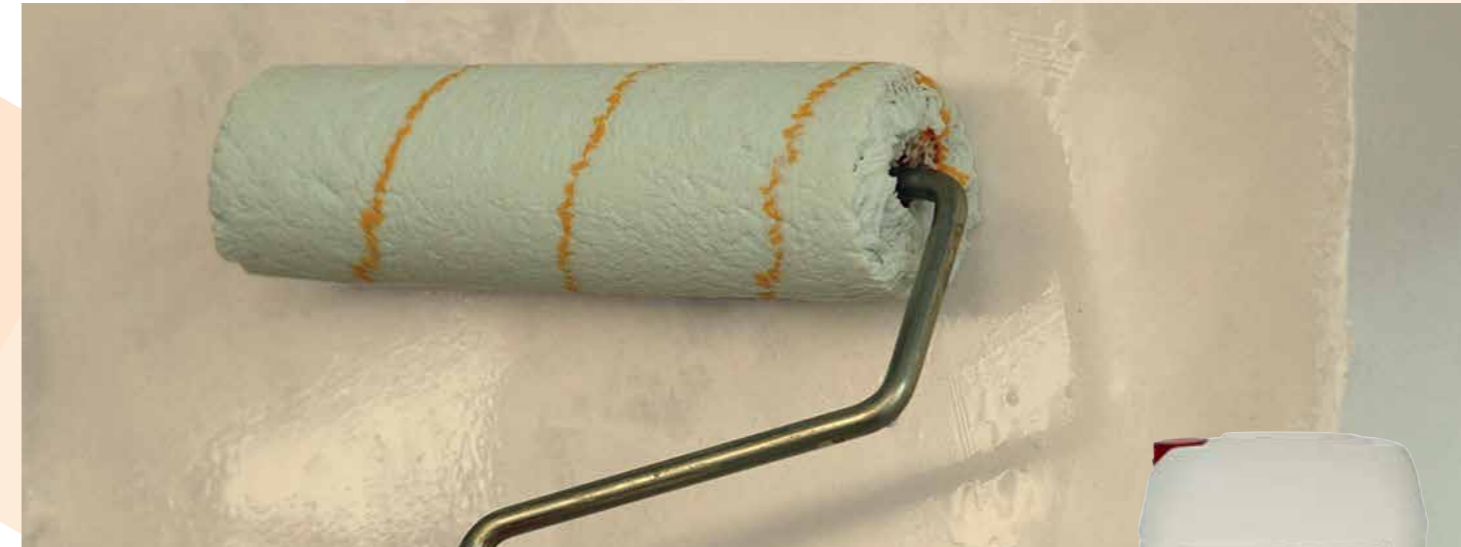
- Store between 5 - 35 °C.

### Packaging

- 5 kg and 25 kg pails.
- 5 kg packages packed together in 2s.

## 5337 Saten Alçı Astarı

Satin Plaster Clear Primer



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Colours	Clear
Composition	Acrylic emulsion based
Tinner	Water
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Ready for the application of the final coating after 6 hours. Lower temperatures and/or higher relative humidity will lengthen the drying process.
Consumption	Depending on the evenness and the porosity of the surface approximately 0.075 - 0.1 L/m <sup>2</sup>
Application Tools	Brush, Roller paint, Airless spraying equipment.

### Description

Acrylic emulsion based, ready to use, unpigmented primer for priming the surfaces on which any type of water based paint will be applied.

### Fields of Application

- Prior to emulsion based coating application on all kinds of porous, highly absorbent and / or unsound mineral surfaces such as concrete, mortar, gypsum, gypsum panel, putty etc, and on old painted surfaces.

### Properties

- Penetrates deeply to the substrate thanks to its filler free structure, reinforces the substrate and increases the adhesion of surface coating to the substrate.
- Decreases paint consumption by decreasing the absorbency of the substrate.
- Prevents cracking of coating in very hot weather due to quick drying.
- Ready to use, rapid drying, easy to apply.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion.
- The surface should be made sound, clean and dry. New cementitious substrates must be cured. All water insulation precautions should have been taken prior to application.
- Sand glossy, solvent based painted surfaces to improve adhesion and remove the occurring powder.
- If necessary, the surface cracks and even the substrate with Kale İNCE/KALIN AKRİLİK MACUN, Kale MACUNART or Kalekim TAMIRART.
- Mix SATEN ALÇI ASTARI thoroughly before application.
- Apply to the surface without thinning using a brush, roller or spray system.
- Apply the coating material 6 hours after the application of SATEN ALÇI ASTARI.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C and the surface is rain free during application and during the 24 hours following the application.

- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity, imminent rain or frost.
- Not suitable for application on horizontal surfaces exposed to rain or moisture.

### Storage

- Store between 5 - 35 °C.

### Packaging

- 5 L and 20 L plastic barrels.

# 4009 Macunart

Cement Based, Water Resistant, Fine, Surface Smoothing Putty



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Appearance	White powder	
Shelf Life	12 months in the original sealed packaging in dry place.	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Pot life	Min. 3 hours	
Mixing Ratio	6.5-7.3 L water / 20 kg powder	
Waiting Time Between the Coats	2-3 hours between coats. Lower temperatures and/or higher relative humidity will lengthen the drying process.	
<b>Application Tools</b>		
Consumption	Stainless steel trowel. Depending on the evenness and the porosity of the surface approximately 0.5-1.0 kg for 1 mm application thickness. Application should be held in maximum 3 mm.	
<b>Performance Data</b>		
Compression Strength (EN 12190)	≥ 10 N/mm <sup>2</sup>	
Bond Strength bu Pull-Off (EN 1542)	≥ 0.8 MPa	
Reaction to Fire (EN 13501-1)	A1	

## Description

Cement based, fine, white, surface smoothing putty formulated for smoothing the uneven concrete and mineral surfaces, filling up the hair cracks and for covering interior and exterior surface defects.

## Fields of Application

- For smoothing the uneven concrete and mineral surfaces, for filling up the hair cracks and for covering the surface defects due to removal of blistered old coating.

## Properties

- Forms very strong, non-dusting and smooth surfaces, thus contributes to the appearance and the resistance of the top coat.
- Resistant to water and to moisture; when dampened, does not soften or does not weaken the adherence of the top coat to the substrate.
- Compared to gypsum panels and gypsum based materials, has higher durability and adherence strength therefore more resistant against cracking.
- Reduces paint consumption by decreasing the absorbency of the surface.

- Having high filling capacity, at most 2 layers will be sufficient to achieve a smooth surface. Easy to apply.
- Easy to sand, non-dusting.
- Does not prevent the water vapour permeability of the wall.

## Application

- The substrate must be sound, dry, clean and free from all materials that may prevent good adhesion.
- The cracks larger than 3 mm should be repaired with Kalekim TAMIRART.
- The surface should be dampened before the application or should be primed with Kale SATEN ALÇI ASTARI for better result.
- 20 kg of MACUNART should be poured in 6.5-7.3 liters of clean water slowly; and mixed well until no lumps remain.
- Low speed mixer is recommended for mixing process.
- The mixture should be matured for 5 - 10 minutes, then mixed again before the application.
- The prepared mortar should be applied to the surface using a stainless steel trowel. If putty is to be applied more than one coat 2 - 3 hours should be

passed between two coats. Total thickness of the putty should not exceed 3 mm.

- Occasional dampening of the surface is recommended within 2 days, starting from 6 - 12 hours after the application of putty.
- Consume the prepared mortar within 3 hours. Dispose of the mortar that exceeds the pot life.
- Do not add any additives, except the ones stated in the product application instructions.
- Ensure that the air and substrate temperature is above +5°C during the application and 24 hours following the application.
- The surface should be sanded when the mortar gets totally dry.
- The application should be held in between 5 - 35°C.

## Storage

- Stack maximum 10 layers and store in dry conditions.

## Packaging

- Available in 5 kg polyethylene and 20 kg multi-ply paper bags.



## Points to Consider Before Application

### Surface Preparation

Surface preparation work is very important to guarantee the very best results from any paint application. The substrate should be treated according to the type of coating that will be applied; defects in architectural details should be corrected and all necessary water insulation precautions should be taken beforehand. The surface must be completely cleaned from old and loose paint layers into a clean, dry and sound condition. If necessary; surface cracks should be filled with the appropriate repair materials and the surface should be evened out. A primer should be applied before the very last layer of coating in order to increase the adhesion and durability of the final coat. The surface preparations should be properly carried out to attain a smooth looking and long lasting paint application.

### Weather Conditions

Coating materials should not be applied in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity, imminent rain. The air and substrate temperature should not be below 5°C during application.

### Surface Cleaning

The surface must be completely cleaned from old and loose paint layers into a clean, dry and sound condition. If necessary, all areas should be sandpapered prior to the application. Water with detergent can be used to clean oils and grease from the surface, high pressure water jets can be used to clean excessively dusty areas. Coating applications should not start until the surfaces have dried thoroughly.

### Moisture

Excessive moisture may decrease the adherence of the coating to the wall and cause blistering, flaking and mould formation. In some situations the moisture could be the result of a structural problem. Problems caused by leaking pipes or moisture diffusion from soil should be eradicated before the plaster or paint application takes place. Failure to take the effective measures will eventually cause the last layer of coat to blister. Problems caused by insufficient water insulation will not only result in a poor appearance but also harm the building structure.

### Surfaces With Older Paint

If the existing paint has swollen or flaked off, the areas affected should be sandpapered. Kale KALIN / İNCE AKRİLİK MACUN and MACUNART can be used to fill cracks and even the surface. Surfaces with older paint or very dirty surfaces should be primed with Kale ÜNİASTAR or SİLASTAR. Mouldy surfaces, surfaces with older paint should be cleaned with a wet cloth before any application, taking care not to disperse the mould. The coating application can be made after the surface dries.

## Primer Color Suggestions

Both in interior and exterior usage, choosing the primer color similar to the color of the coating will contribute to hiding power of paint and plaster as well as leading to spending of less effort during application. In the below stated table, you may find our suggestions for primer colors to be used under paint and plaster on exteriors.



Primer Color	Primer Code	Exterior Paint / Plaster Color Code
	800	4011 - 4021 - 4031 - 4041 - 4042 - 4091 - 4112 - 4121 - 4131 - 4191 - 4201 - 4202 - 4241 4381 - 4401 - 4402 - 4403 - 4404 - 4405 - 4406 - 4407 - 4408 - 4409 - 4410 - 4411 - 4412 4471 - 4541 - 4542 - 4551 - 4561 - 4562 - 4571
	3013	4012 - 4013 - 4014 - 4022 - 4023 - 4024 - 4034 - 4194 - 4463 - 4481 - 4482 - 4483 - 4491 4492 - 4493 - 4544
	3033	4032 - 4033 - 4461 - 4462 - 4472 - 4473 - 4543 - 4552 - 4553
	3035	4025 - 4035 - 4046 - 4464 - 4474 - 4554
	3054	4044 - 4054 - 4055 - 4064 - 4065 - 4066 - 4074 - 4075 - 4076 - 4084 - 4094 - 4104 - 4533
	3062	4052 - 4062 - 4063 - 4071 - 4072 - 4073
	3081	4043 - 4051 - 4053 - 4061 - 4081 - 4082 - 4083 - 4092 - 4093 - 4101 - 4102 - 4103 - 4111 4531 - 4532
	3105	4045 - 4056 - 4085 - 4086 - 4095 - 4096 - 4105 - 4106 - 4534 - 4535 - 4536
	3132	4113 - 4114 - 4122 - 4123 - 4132 - 4133 - 4141 - 4142 - 4151 - 4171 - 4172 - 4511 - 4512 - 4521
	3135	4115 - 4125 - 4126 - 4134 - 4135
	3153	4124 - 4143 - 4144 - 4152 - 4153 - 4154 - 4163 - 4164 - 4173 - 4174 - 4504 4514 - 4523 - 4524 - 4525
	3161	4161 - 4162 - 4501 - 4502 - 4503 - 4513 - 4522
	3175	4116 - 4136 - 4145 - 4146 - 4155 - 4156 - 4165 - 4166 - 4175 - 4176 - 4465 - 4466 - 4484 4505 - 4506 - 4515 - 4516 - 4526
	3185	4015 - 4016 - 4026 - 4036 - 4185 - 4186 - 4195 - 4196 - 4235 - 4236 - 4385 - 4386 - 4475 4476 - 4485 - 4486 - 4494 - 4495 - 4496 - 4545 - 4546 - 4555 - 4556 - 4565 - 4566 - 4575 4576
	3222	4192 - 4221 - 4222 - 4371
	3223	4203 - 4204 - 4223 - 4224 - 4372 - 4373 - 4374
	3225	4225 - 4226
	3232	4181 - 4182 - 4183 - 4193 - 4231 - 4232 - 4233 - 4242 - 4243 - 4382 - 4383 - 4563 - 4564 4572 - 4573
	3234	4184 - 4234 - 4244 - 4245 - 4246 - 4384 - 4574
	3375	4205 - 4206 - 4375 - 4376



NOTICE! Due to printing techniques, there may be differences between color tones shown here and emerged after application.



# Tinting System

## 5600 Renklendirici

### Universal Concentrated Pigment Paste



Technical Properties	(at 23°C and 50% RH)
Colours	16 colours
Composition	Concentrated pigment paste



#### Description

Universal concentrated pigment paste with a high degree of resistance to light and changing weather conditions developed to be used in an automatic tinting system named RENK BANKASI. Color strength and consistency of Renklendirici are adjusted very sensitively.

#### Fields of Application

- In automatic tinting system, RENK BANKASI.

#### Properties

- High tinting strength since concentrated.
- Gives standard colour guarantee since colour strength is strictly controlled.
- Designed to cover full colour space with only 16 colorants.
- Lead free and environmentally friendly.

#### Storage

- Store between 5 - 35 °C.

#### Packaging

- In 1 L plastic bottles which are packed in 6s.

#### Renk Bankasi

- RENK BANKASI allows the preparation of the same color even after years without any difference in shade. This system provides retailers to offer thousands of color alternatives to their customers, much less stockouts as the number of inventory items is greatly reduced, better distribution economics due to reduced number of emergency deliveries and easier planning of distribution as the amount of stock keeping units is smaller, reduced inventory and faster turnover of paints, instead of ready-mix colour shades; only 3 base paints and 16 colorants are held stock; more than 50% inventory savings.



# It's Visuelle Time Now!

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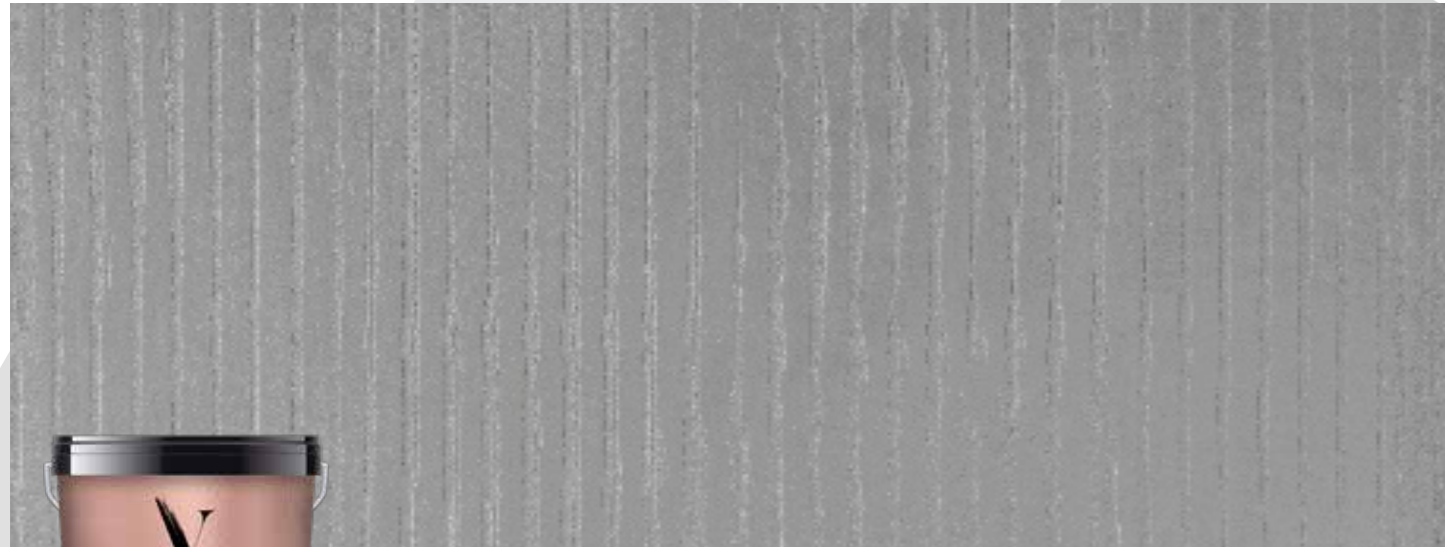
## Visuelle Products

- 318 SEDEF
- 320 METALIK
- 322 REFLEKTE
- 324 STUCCO SATINE
- 326 STUCCO CALCE
- 328 ORION
- 330 AURA
- 332 DREAM
- 334 FIGURA FINO
- 336 CEMENTO
- 337 ANTIQUE
- 338 FINISH COAT ANTIQUE
- 340 ARTCRETE
- 342 FINISH COAT ARTCRETE
- FINISH COAT ARTCRETE MATT
- 344 ARTCRETE COLOR MIX
- 346 GLASS PLASTER
- 348 BETONART
- 350 BETONART LOFT
- 352 BETONART FRESH
- 354 VİTRAY LAK



# 5320 Sedef

Decorative Interior Paint with Pearl Effect



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Composition	Acrylic emulsion based
Colours	9 colours in Efekt Colour Chart. Tintable
Density	Approx. 1.06 g/cm <sup>3</sup>
Tinner	Water
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Tack-free time: 30 minutes. Thoroughly dry: After 24 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)
Consumption	Depending on the evenness and the porosity of the surface approx. 0.06 - 0.16 kg/m <sup>2</sup> per coat.
Application Tools	Brush, Roller, Airless spraying equipment, decorative application tools (sponge, spatula, etc.)

## Description

Acrylic emulsion based decorative interior paint with pearl effect.

## Fields of Application

• On interiors suitably prepared new mineral surfaces such as mortar, concrete, cement panel, gypsum panel etc, on old painted surfaces, glass textile, putty and wall paper to create a decorative effect and on wood and metal surfaces for hobby purposes.

## Properties

- Easily cleanable with its scrub resistance.
- High water vapour permeability.
- Pearl effect.
- Provides the possibility to create infinite number of patterns with respect to the used application tool, method and the imagination of the user.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

## Application

- After brushing the loosely stuck flakes away, VİTRAY LAK should be applied, on VİTRAY FON and flake applied surfaces.
- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application.
- If necessary, fill the surface cracks and even the substrate with Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- To have a fine, smooth texture, smoothen the entire surface by using Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- Prime old painted, very dirty surfaces with Kale SİLASTAR, new and porous surfaces with Kale ÜNİASTAR or Kale MACUNART.
- Apply KALIA MAT, KALIA İPEK MAT or Sedef in 2 coats after the primer application.
- Apply Sedef by one of the following methods after the paint application:

- Sedef should be applied with roller or brush and desired patterns are created with decorative application tools before it dries.
- Desired patterns are formed on the surface by padding Sedef with a sponge, paper or piece of cloth.
  - Clean the tools with water.
  - Ensure that the air and surface temperatures are above +5 °C during the application and 24 hours following the application.

## Storage

- Store between 5 – 35 °C.

## Packaging

- 1, 2.5 and 15 kg pails.
- 1 kg and 2.5 kg packages packed together in 2s.



# 5321 Metalik

Decorative Interior Paint with Metallic Effect



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Composition	Acrylic emulsion based
Colours	5 colours in Efekt Colour Chart. Colour Silver is tintable
Density	Approx. 1.05 g/cm <sup>3</sup>
Tinner	Water
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Tack-free time: 30 minutes. Thoroughly dry: After 24 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)
Consumption	Depending on the evenness and the porosity of the surface approx. 0.07 - 0.20 kg/m <sup>2</sup> per coat.
Application Tools	Brush, Roller, Airless spraying equipment, decorative application tools (sponge, spatula, etc.)

## Description

Acrylic emulsion based decorative interior paint with metallic effect.

## Fields of Application

- On interiors suitably prepared new mineral surfaces such as mortar, concrete, cement panel, gypsum panel etc, on old painted surfaces, glass textile, putty, and wallpaper to create a decorative effect.

## Properties

- Easily cleanable with its scrub resistance.
- Provides the possibility to create infinite number of patterns with respect to the used application tool, method and the imagination of the user.
- Superior hiding power.
- Metallic luster.
- Provides the possibility to create infinite number of patterns with respect to the used application tool, method and the imagination of the user.
- High water vapour permeability.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

## Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion.
- The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application.
- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.
- If necessary, fill the surface cracks and even the substrate with Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- To have a fine, smooth texture, smoothen the entire surface by using Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- Prime old painted, very dirty surfaces, new and porous surfaces with Kale SILASTAR.
- Apply Metalik in 2-3 coats without thinning for smooth finish.
- For decorative patterns surface should be painted with KALIA İPEK MAT or KALIA MAT in 2 coats, after the paint application,

- Metalik should be applied with roller or brush and desired patterns are created with decorative application tools before it dries.
- Desired patterns are formed on the surface by padding Metalik with a sponge, paper or piece of cloth.
  - Clean the tools with water.
  - Ensure that the air and surface temperatures are above +5 °C during the application and 24 hours following the application.

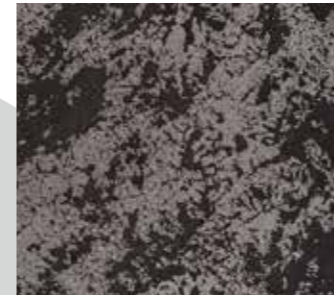
## Storage

- Store between 5 – 35 °C.

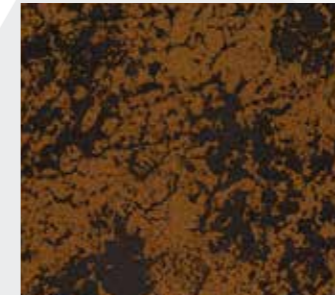
## Packaging

- 1 kg and 2.5 kg pails.
- 1 kg and 2.5 kg packages packed together in 2s.

## Metalik Colors



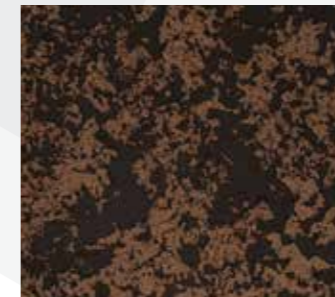
BTNM 101



BTNM 102



BTNM 103



BTNM 106

# 5322 Reflekte

Decorative Interior Paint with Iridescent Effect



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Composition	Acrylic emulsion based
Colours	4 colours in Efekt Colour Chart.
Density	Approx. 1.06 g/cm <sup>3</sup>
Tinner	Water
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Tack-free time: 30 minutes. Thoroughly dry: After 24 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)
Consumption	Depending on the evenness and the porosity of the surface approx. 0.06 - 0.16 kg/m <sup>2</sup> per coat.
Application Tools	Brush, Roller, Airless spraying equipment, decorative application tools (sponge, spatula, etc.)

## Description

Acrylic emulsion based decorative interior paint with iridescent effect.

## Fields of Application

- On interiors suitably prepared new mineral surfaces such as mortar, concrete, cement panel, gypsum panel etc, on old painted surfaces, glass textile, putty and wall paper to create a decorative effect and on wood and metal surfaces for hobby purposes.

## Properties

- Easily cleanable with its scrub resistance.
- High water vapour permeability.
- Iridescent lustre.
- Provides the possibility to create infinite number of patterns with respect to the used application tool, method and the imagination of the user.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

## Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion.
- The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application.
- If necessary, fill the surface cracks and even the substrate with Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- To have a fine, smooth texture, smoothen the entire surface by using Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- Prime old painted, very dirty surfaces with Kale SİLASTAR, new and porous surfaces with Kale SATEN ALÇI ASTARI or Kale SİLASTAR.
- Apply KALIA MAT or KALIA İPEK MAT in 2 coats after the primer application. It is recommended to apply black colored paint in order to get the best iridescent effect.

- Apply Reflekte by one of the following methods after the paint application:

- Apply Reflekte with roller or brush, and create desired patterns with decorative application tools before it dries.
  - Pad Reflekte with a sponge, paper or a piece of cloth to form desired patterns.
- Clean the tools with water.
  - Ensure that the air and surface temperatures are above +5 °C during the application and 24 hours following the application.

## Storage

- Store between 5 – 35 °C.

## Packaging

- 1 kg and 2.5 kg pails.
- 1 kg and 2.5 kg packages packed together in 2s.

## Reflekte Colors



RFT 104



RFT 103



RFT 102

# 7326 Stucco Satine

## Marble Effect Decorative Interior Paint



Technical Properties	
(at 23°C and 50% RH)	
General Data	
Composition	Acrylic emulsion based
Colours	In color chart and thousands of colors possible
Density	Approx. 1.7 g/cm <sup>3</sup>
Tinner	Water
Application Data	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Tack-free time: 1-2 hours Thoroughly dry: 4-6 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)
Consumption	Depending on the evenness and the porosity of the surface approx. 0.100 – 0.150 kg/m <sup>2</sup>
Application Tools	Steel Trowel, Spatula

### Description

Acrylic emulsion based decorative interior paint with marble effect.

### Fields of Application

- On interiors suitably prepared new mineral surfaces such as mortar, concrete, cement panel, gypsum panel etc, on old painted surfaces, glass textile, putty and wall paper to create a decorative effect.

### Properties

- Marble effect
- Water Based
- High water vapour permeability
- Glossy
- Easily cleanable
- Tintable

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry.

- For obtaining a fine, smooth surface, the entire surface should be smoothen by using Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- Surface should be primed with Kale SATEN ALÇI ASTARI or SİLASTAR.
- After the primer application, STUCCO SATINE should be applied without thinning in two coats on the whole surface with a trowel. 3-5 hours should pass between the coats. Special care should be shown for not leaving trowel marks on the surface; if needed surface should be sandpapered.
- After paint dries, STUCCO SATINE should be applied without thinning in diagonal, vertical and horizontal dashed patterns by help of trowel or spatula. After that, spaces between the patterns should be filled with short patterns.
- Before the surface dries, excessive paint should be removed by trowel without damaging the pattern. A smooth surface should be obtained.

- In order to have a glossy finish, the trowel must be moved over the surface by applying pressure in circular movements and in different directions.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C during the application and 24 hours following the application.

### Storage

- Store between 5 – 35 °C in its unopened pail.

### Packaging

- 5 kg, 10 kg ve 15 kg plastic pails.
- 5 kg packages packed together in 2s.

## Stucco Satine Colors



STC 116



STC 100



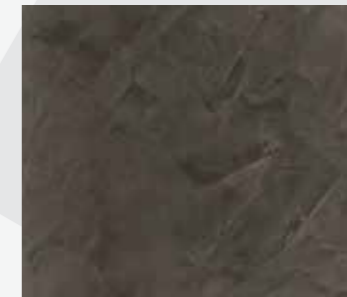
STC 109



STC 117



STC 111



STC 103

# 7330 Stucco Calce

Lime Based, Marble Effect Decorative Interior Coating



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Colours	Colours in colour chart	
Composition	Acrylic Emulsion Based, Lime Based	
Texture	Gloss, marble	
Thinner	Water	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	Tack-free time 2-3 hours Thoroughly dry 24 hours Lower temperature and/or higher relative humidity will lengthen the drying process.	
Consumption	Depending on the evenness and the porosity of the surface approximately 0.30-0.50 kg/m <sup>2</sup>	
Application Tools	Steel Trowel, Spatula	

## Description

Acrylic emulsion based and lime based, marble effect, ready to use, glossy, decorative interior coating.

## Fields of Application

On interiors suitably prepared new mineral surfaces such as mortar, concrete, cement panel, gypsum panel etc, on old painted surfaces, glass textile, putty and wallpaper to create a decorative effect.

## Properties

- Smooth shine of the marble surfaces.
- Gives marble effect.
- Easily applicable.
- Does not crack with its flexible composition.
- High water vapour permeability.
- Tintable.

## Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application.
- The surface should be sound and dry. All water-related insulation measures of the building must be taken beforehand.

- Sand glossy and/or solvent-based painted surfaces to improve adhesion and remove the residue powder.
- If necessary, fill the surface cracks and even the substrate surface with KALE MACUNART, KALE İNCE AKRİLİK MACUN or KALEKİM TAMİRART.
- Surface should be primed with KALE SİLASTAR before the application of STUCCO CALCE.
- After the primer application, STUCCO CALCE should be applied without thinning in two coats on the whole surface with a trowel. After 3-5 hours the second coat should be applied. Special care should be shown for not leaving trowel marks on the surface; if needed surface should be sanded.
- STUCCO CALCE should be applied without thinning in diagonal, vertical and horizontal dashed patterns by help of trowel or spatula. After that, spaces between the patterns should be filled with short patterns.
- Before STUCCO CALCE has dried yet; in order to have a smooth surface, excess paint on the surface is removed with the help of a trowel without disturbing the given patterns and a smooth surface is obtained.
- In order to have a glossy finish, the trowel must be moved over the surface by applying pressure in circular movements and in different directions.

## Please Note

- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C during the application and 24 hours following the application.
- It should not be applied directly to newly painted glossy and synthetic surfaces.
- In case of coloring with Renk Bankası or Renk Ustasi, the product must be thoroughly mixed to ensure that it is totally homogeneous.

## Storage

- Store between (+5°C) - (+30°C). It is recommended to consume the opened package and not store it again. If the opened packages needs to be stored, they should be stored tightly closed. The lid of the package should not be left open for a long time. This can lead to surface drying.
- Shelf Life: If the product is stored in its unopened original packaging and within the recommended temperature range, the recommended shelf life is 2 years.

## Packaging

- 5 kg and 15 kg pails.
- 5 kg packages packed together in 2s.

## Stucco Calce Colors



C 101



C 102



C 109



C 114



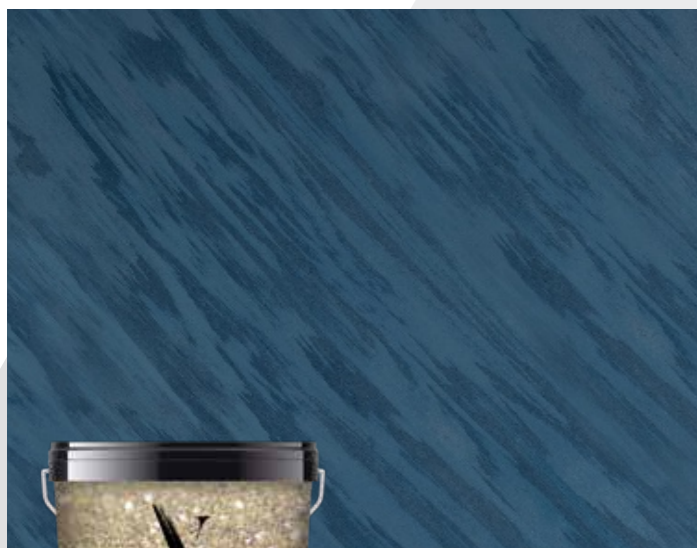
C 124



C 125

# 7318 Orion

Decorative Interior Paint with Metallic Sandy Effect



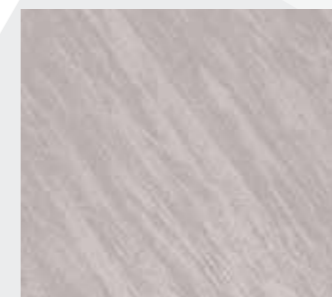
7317  
COARSE  
GRAIN IS ALSO  
AVAILABLE

Technical Properties	
(at 23°C and 50% RH)	
General Data	
Composition	Acrylic emulsion based
Colours	Colors in its color chart
Density (Std/Coarse)	Approx. 1.37 g/cm <sup>3</sup> / 1.49 g/cm <sup>3</sup>
Tinner	Water
Application Data	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Tack-free time: 1-2 hours Thoroughly dry: 4-6 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)
Consumption (Std / Coarse)	Depending on the evenness and the porosity of the surface approx. 0.3 - 0.5 kg/m <sup>2</sup>
Application Tools	Brush, Effect Trowel

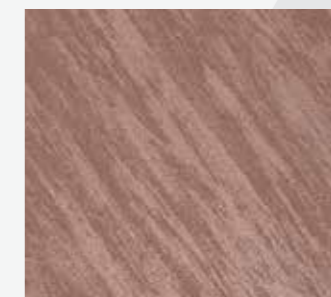
## Orion Colors



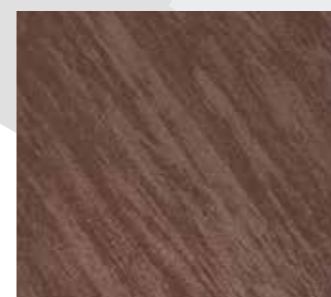
ORN 149



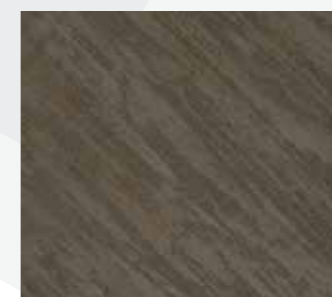
ORN 100



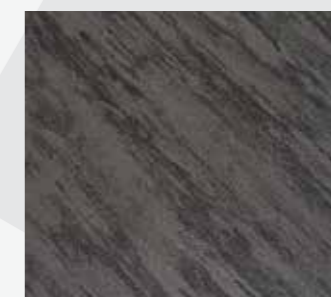
ORN 156



ORN 152



ORN 143



ORN 101

### Description

Acrylic emulsion based decorative interior paint with metallic sandy effect.

### Fields of Application

- On interiors suitably prepared new mineral surfaces such as mortar, concrete, cement panel, gypsum panel etc, on old painted surfaces, glass textile, putty and wall paper to create a decorative effect and on wood and metal surfaces for hobby purposes.

### Properties

- Makes it possible to form creative textures by its shiny and granular structure.
- Creates different effects changing with light and perspective.
- High water vapour permeability.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application.
- If necessary, fill the surface cracks and even the substrate with Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- To have a fine, smooth texture, smoothen the entire surface by using Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- Prime new, old painted, very dirty surfaces with Kale SILASTAR in a suitable color.
- Apply ORION using effect brush by one of the following methods after the paint application:
  - ORION should be applied homogeneously with short and straight touches to have a parallel lined texture.
  - ORION should be applied homogeneously with short and circular touches to have a wavy texture.

- After 5-10 minutes pass with a clean effect brush over the application to remove the excessive paint and give the final texture.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C during the application and 24 hours following the application.

### Storage

- Store between 5 – 35 °C.

### Packaging

- 1 kg, 2.5 kg and 5 kg pails.
- 1 kg and 2.5 kg packages packed together in 2s.

# 7319 Aura

Decorative Interior Paint with Velvet Pearl Effect



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Composition	Acrylic emulsion based	
Colours	Colors in its color chart	
Density	Approx. 1.15 g/cm <sup>3</sup>	
Tinner	Water	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	Tack-free time: 1-2 hours Thoroughly dry: 4-6 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)	
Consumption	Depending on the evenness and the porosity of the surface approx. 0.2 – 0.3 kg/m <sup>2</sup>	
Application Tools	Effect Trowel	

## Description

Acrylic emulsion based decorative interior paint with velvet pearl effect.

## Fields of Application

- On interiors suitably prepared new mineral surfaces such as mortar, concrete, cement panel, gypsum panel etc, on old painted surfaces, glass textile, putty and wall paper to create a decorative effect and on wood and metal surfaces for hobby purposes.

## Properties

- Forms elegant spaces with its velvet pearl effect.
- Creates different effects with the help of its pearl ingredient and special fillers.
- High water vapour permeability.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

## Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application.
- If necessary, fill the surface cracks and even the substrate with Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- To have a fine, smooth texture, smoothen the entire surface by using Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- Prime new, old painted, very dirty surfaces with Kale SILASTAR.
- Apply AURA in one coat to whole surface using effect trowel.
- For giving the texture, after 2 hours apply AURA with circular movements until the desired pattern is obtained.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C during the application and 24 hours following the application.

## Storage

- Store between 5 – 35 °C.

## Packaging

- 1 kg, 2.5 kg and 5 kg pails.
- 1 kg and 2.5 kg packages packed together in 2s.

## Aura Colors



AUR 134



AUR 101



AUR 173



AUR 105



AUR 148



AUR 164

# 7313 Dream

## Water Based Decorative Interior Pearl Effect Putty



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Composition	Acrylic emulsion based
Colours	Pearl effect off-White and tintable
Density	Approx. 1.51 g/cm <sup>3</sup>
Tinner	Water, if necessary
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Thoroughly dry after 24 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)
Consumption	Depending on the evenness and the porosity of the surface approximately 0,5 - 2,0 kg/m <sup>2</sup> .
Application Tools	Spatula, Brush, Elastic stainless steel trowel.

### Description

Acrylic emulsion based, ready-to-use, interior decoration putty that allows various aesthetic results, two and three dimensional decorative textures and fine patterns and provides pearly shine finish.

### Fields of Application:

On suitably prepared interiors such as concrete, mineral plaster, gypsum and plasterboard surfaces etc., before the top coat or finish paint.

### Properties

- Easy to apply and it gives different decorative textures and effects.
- Creates a solid, dust-free and smooth surface before the decorative top coat or final paint.
- Resistant to moisture.
- High water vapour permeability.
- Filling power is high.
- Ecologically compatible and practically odourless.

### Application

- The surface must be cleaned off from dust, dirt, oil and old blistered coatings that may prevent good adhesion.
- The surface should be made sound, clean and dry. Before the application on new mineral surfaces should be waited for at least 28 days to cure. All water-related insulation measures of the building must be taken beforehand.
- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the powder residue.
- If necessary, fill the surface cracks and even the substrate with KALE INCE AKRİLİK MACUN or KALE MACUNART.
- Prime old painted, very dirty or new and porous surfaces with KALE SİLASTAR, and plaster surfaces with KALE SATEN ALÇI ASTARI.
- DREAM should be mixed thoroughly before application.
- DREAM is available in off-white color and can be tinted by RENK USTASI.

- After applying DREAM unevenly by using stainless steel trowel, it is possible to have very characteristic and aesthetic 2D or 3D patterns by passing over the surface by a selected decorative tool such as mat trowel, comb brush, pad brush or spatula.
- 24 hours after DREAM application, the surface should be smoothed by removing the defects, spatula marks by sandpaper.
- Before the application of the final coat or paint, it is recommended to prime the surface with KALE SATEN ALÇI ASTARI or KALE SİLASTAR.

### Storage

Store between 5- 35° C.

### Packaging

1 kg, 2,5 kg and 5 kg.





# 7316 Figura Fino

## Water Based Decorative Interior Putty



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Composition	Acrylic emulsion based
Tinner	Water, if necessary
Colours	Off-White and tintable
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Thoroughly dry after 24 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)
Consumption	Depending on the evenness and the porosity of the surface approx. 0.5 - 1.2 kg/m <sup>2</sup>
Application Tools	Spatula, Brush, Elastic stainless steel trowel

### Description

Acrylic emulsion based, ready-to-use, interior decoration putty that allows various aesthetic results, two and three dimensional decorative textures, effects and patterns in fine structure.

### Fields of Application

• On suitably prepared interiors such as concrete, mineral plaster, gypsum and plasterboard surfaces etc., before the top coat or finish paint.

### Properties

- Easy to apply and it gives different decorative textures and effects.
- Creates a solid, dust-free and smooth surface before the decorative top coat or final paint.
- Resistant to moisture.
- High water vapour permeability.
- Filling power is high.
- Solvent free and practically odourless.
- Water thinnable and ecologically compatible.

### Application

- The surface must be cleaned off from dust, dirt, oil and old blistered coatings that may prevent good adhesion.
- The surface should be made sound, clean and dry. Before the application on new mineral surfaces should be waited for at least 28 days to cure. All

water-related insulation measures of the building must be taken beforehand.

- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the powder residue.
- If necessary, fill the surface cracks and even the substrate with Kale İNCE AKRİLİK MACUN or Kale MACUNART.
- Prime old painted, very dirty or new and porous surfaces with Kale SILASTAR, and plaster surfaces with SATEN ALÇI ASTARI.
- Figura Fino should be mixed thoroughly before application.
- Figura Fino is tinted in off-white color and can be tinted by tinted.
- After applying Figura Fino unevenly by using stainless steel trowel, it is possible to have very characteristic and aesthetic 2D or 3D patterns by passing over the surface by a selected decorative tool such as mat trowel, comb brush, pad brush or spatula.
- 24 hours after Figura Fino application, the surface should be smoothed by removing the defects, spatula marks by sandpaper.
- Before the application of the final coat or paint, it is recommended to prime the surface with Kale SATEN ALÇI ASTARI or Kale SILASTAR.

- Application tools should be washed with water immediately after use.
- For the following 24 hours and during the application, the temperature of the environment and the surface to be treated should be minimum + 5 °C and be dry.
- Application should not be made in very hot weather, under direct sun, in high relative humidity.
- Extremely hot surfaces should be moistened before application.
- Care should be taken to use products with the same charge number to avoid shade differences that may occur.
- If different charges are used, all the amount required should be mixed in advance.

### Storage

- Store between 5 – 35 °C.

### Packaging

- 5 kg and 15 kg pails.
- 5 kg packages packed together in 2s.

## Figura Fino Colors



MCNAU 273



MCNAU 274



MCNAU 207



MCNAU 267

## 5045 Cemento

Decorative Coating with Soft Concrete Appearance



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Colours	White and Gray
Composition	Mineral based powder
Appearance	Powder
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Mixing Ratio	White: 4.2 – 4.8 L water / 15 kg powder (1.4 – 1.6 L water / 5 kg powder) Gray: 3.6 – 4.2 L water / 15 kg powder (1.2 – 1.4 L water / 5 kg powder)
Pot Life	Average 3 hours
Expiration	24 hours
Recoat	2-3 hours (Lower temperatures and/or higher relative humidity will lengthen the drying process.)
Application Tools	Spatula, Elastic stainless steel trowel
Consumption	Approx. 1 kg/m <sup>2</sup> for 1 mm thickness
<b>Performance Data</b>	
Flexural Strength (EN 1015-11)	≥ 3.0 N/mm <sup>2</sup> (28 days)
Compressive Strength (EN 1015-11)	≥ 6.0 N/mm <sup>2</sup> (28 days) (CS IV)
Bonding Strength (EN 1015-12)	≥ 0.8 N/mm <sup>2</sup> (28 days)
Capillary Water Absorption (EN 1015-18)	≤ 0.4 kg/mm <sup>2</sup> min <sup>0.5</sup> (Wc1)
Service Temperature	(- 30°C) - (+ 80°C)

### Description

Soft concrete looking decorative coating material with mineral based white and gray color alternatives.

### Fields of Application

• On suitably prepared interiors such as concrete, mineral plaster, gypsum and plasterboard surfaces old painted surfaces, fixed plywood, putty and wallpaper on the interior facade.

### Properties

- Natural and decorative appearance with its soft concrete effect.
- Provides the opportunity to create an infinite number of patterns in accordance with the application tool, method and user's imagination.
- By different application alternatives, it enables the creation of numerous different effects.
- Has 2 different color alternatives; CEMENTO White and CEMENTO Gray.
- Thanks to its high water vapor permeability, it helps buildings to breathe.
- It is human and environmental friendly.

### Application

- The surface must be cleaned off from dust, dirt, oil and old blistered coatings that may prevent good adhesion.
- The surface should be made sound, clean and dry.
- Before the application on new mineral surfaces at least 28 days should be waited for the surface to cure. All water-related insulation of the building measures must be taken beforehand.
- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove the occurring powder.
- If necessary, fill the surface cracks and even the substrate with Kale INCE AKRİLİK MACUN or Kale MACUNART.
- Prime old painted, very dirty or new and porous surfaces with Kale SİLİSTAR, and plastered surfaces with SATEN ALÇI ASTARI.

- The specified amount of water in the technical table should be added to 5045 CEMENTO slowly and mixed until no lump remains. Low speed mixer should be used to mix.
- Mortar should be rested for 5-10 minutes before use and mixed again for application.
- 5045 CEMENTO, depending on the pattern desired to be obtained, in single or multiple layers and the application thickness should be maximum 3 mm. Wait 2-3 hours between coats.
- Wait at least 12 hours for the surface to dry completely.
- In order to increase the water and dirt repelling, after 28 days of curing, surface should be primed with Finish Coat Antique and let it at least 12 hours to dry.
- Any additives not mentioned in the application instructions should not be added to the product.
- The prepared mortar should be used within 3 hours. The expired mortar should be discarded.
- Application tools should be washed with water immediately after use.

- For the following 24 hours and during the application, the temperature of the environment and the surface to be treated should be minimum +5 °C maximum +35 °C and be dry.
- Application should not be made in very hot weather, under direct sun, in high relative humidity.
- Extremely hot surfaces should be moistened before application.
- Care should be taken to use products with the same charge number to avoid shade differences that may occur.
- If different charges are used, all the amount required should be mixed in advance.
- Application temperature is between +5 / + 35 °C.
- The material should not be used on horizontal surfaces exposed to rain.

### Storage

- It should be stored in cool, dry areas.

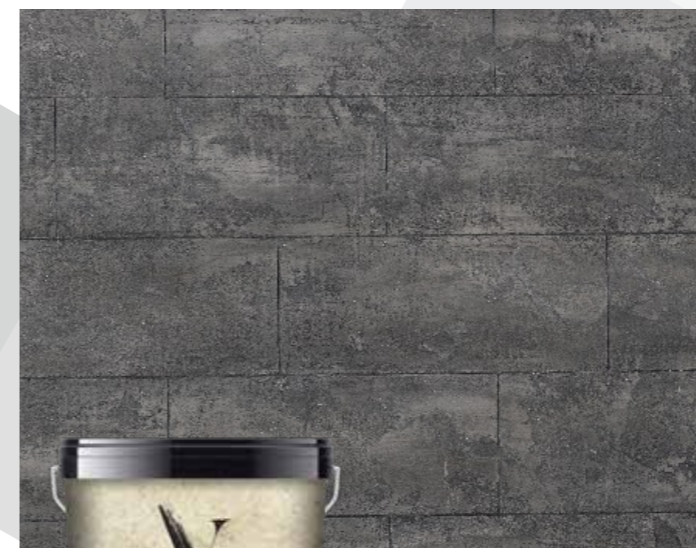
### Packaging

- 15 kg pail (including three 5 kg PE bags)



## 5044 Antique

Mineral Based, Travertine Effect Decorative Coating



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Colours	White
Shelf Life	12 months when stored in the original sealed packaging in a dry place.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Mixing Ratio	4.2 - 4.5 L water / 15 kg powder 1.4 - 1.5 L water / 5 kg powder
Pot Life	Max. 120 minutes
Drying Time	Thoroughly dry after 24 hours. Waiting time between coats 5 - 6 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)
Application Tools	Stainless steel trowel
<b>Performance Data</b>	
Bond Strength (EN 1015-11)	≥ 2.0 N/mm <sup>2</sup> (28 days)
Compressive Strength (EN 1015-11)	≥ 6.0 N/mm <sup>2</sup> (28 days) (CS IV)
Tile Adhesion Strength (EN 1015-12)	≥ 0.50 N/mm <sup>2</sup> (28 days)
Water Absorption (EN 1015-18)	≤ 0.4 kg/mm <sup>2</sup> min <sup>0.5</sup> (Wc1)
Service Temperature Range	(- 30°C) - (+ 80°C)
Bulk Density	1400+100 kg/m <sup>3</sup>
Thermal Conductivity (TS EN 1745)	≤ 0.53 W/m.K; (Table value; P=50%)
Water Vapor Permeability (EN 1015-19)	≤ 20 μ

### Description

Mineral based travertine effect decorative coating.

### Fields of Application

- On suitably prepared interior mineral surfaces such as concrete, mortar, cement panel, gypsum panel, etc. and old painted surfaces, putty and wallpaper in order to give a travertine effect.

### Properties

- Provides infinite number of patterns in addition to travertine effect.
- Creates differentiated places by providing alternative patterns.
- Gives rustic effect and gains water resistance when coated with ANTIQUE COAT.
- Very high water vapour permeability, allowing the building to breathe
- Solvent free and practically odourless.

### Application

- The substrate must be cleaned from dust, dirt oil and old blistered coatings that may prevent good adhesion. The surface should be sound, clean and dry.

- If necessary, fill the surface cracks and even substrate with Kale MACUNART, Kale İNCE/KALIN AKRİLİK MACUN or Kalekim TAMIRART.
- The surface should be dampened before application or should be primed with Kale SATEN ALÇI ASTARI or Kale SİLİSTAR for a better result.
- 15 kg of ANTIQUE should be poured in 4.2 - 4.5 L liters of clean water slowly; and mixed well until no lumps remain. Low speed mixer is recommended for the mixing process.
- The mixture should be matured for 5-10 minutes, then mixed again before application.
- ANTIQUE should be applied on all over the surface at minimum 1 mm thickness with a steel trowel. Wait for 5-6 hours before applying second coat.
- For second coat application, ANTIQUE is applied on all over the surface and before it dries;
  - a) Horizontal texture is given with a steel trowel giving 30 degrees of angle with the surface. Or,
  - b) Texture is given by stroking on the surface randomly with a rigid hair brush.
- Before the surface dries, the surface is smoothed by pressing hard with a dry steel trowel.
- Surface dries thoroughly after 1 day.

- In order to obtain rustic effect ANTIQUE COAT which is tinted by any 24 colors of RENK USTASI is applied with a sponge on the fully dried surface.
- Consume the prepared mortar within 2 hours. Dispose mortar of which pot life is expired.
- No other additives other than the ones stated here should be added in the mixture.
- Ensure that the air and surface temperature are above 10°C during and 24 hours following the application.
- Application should be done between 10°C - 30°C.

### Storage

- Stack multi-ply bags maximum 10 layers and store in dry conditions.

### Packaging

- 5 kg polyethylene and 15 kg plastic pails. (Includes 3x5 kg polyethylene bags)



# 7324 Finish Coat Antique

Rustic Effect Final Coat Primer



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Composition	Acrylic emulsion based
Density	Approx. 1.0 g/cm <sup>3</sup>
Tinner	Water
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Thoroughly dries in 24 hours Lower temperatures and/or higher relative humidity will lengthen the drying process.
Consumption	Depending on the desired effect and porosity of the surface approximately 0.10 – 0.15 L/m <sup>2</sup>
Application Tools	Roller, brush, sponge

## Description

Transparent, semi-matt, final coat primer specially designed as the final coat of travertine look mineral based decorative coating, ANTIQUE to give rustic effect.

## Fields of Application

- On totally cured ANTIQUE applied surfaces after tinting and also on absorbent mineral surfaces such as mortar, gypsum, gypsum panel, putty etc. to give rustic effect.

## Properties

- Gives rustic effect when tinted Gives rustic effect when tinted.
- Increases water resistance of ANTIQUE and similar mineral based surfaces.
- Protects surfaces against scratches and water.
- High water vapour permeability.
- Solvent free and practically odorless; ecologically compatible.

## Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before the application. All water insulation precautions should have been taken prior to application.
- Before applications to be made on highly absorbent surfaces such as ANTIQUE, whole surface should be primed with ANTIQUE COAT without diluting or tinting. This will avoid lap marks especially on large areas.
- Once the surface is ready, ANTIQUE COAT is applied with a roller after tinted
- Immediately after application, surplus is removed by using a wet sponge.
- ANTIQUE COAT is used without diluting. However, if the surface is highly absorbent, it is recommended to add clean water up to maximum %5 by volume.

- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C during the application and 24 hours following the application.

## Storage

- Store between 5 - 35 °C in its unopened pail.

## Packaging

- 1 L and 3 L plastic pails.



# 5328 Artcrete

## Mineral Based Marble Effect Decorative Coating



### Description

Mineral based, marble effect decorative coating enriched by chemical additives.

### Fields of Application

- On interior and exterior walls and on interior floors; on mineral surfaces such as concrete, mortar, cement panel, etc., on previously painted surfaces, and on Kale SATEN ALÇI ASTARI primed gypsum surfaces or gypsum boards. When surface is protected as described in the Instructions for Use section, it can be used in compelling areas such as bathrooms and kitchens.

### Properties

- Having marble look natural effect, a perfect subsidiary for interior designs.
- Provides integrity in areas by allowing use both on walls and also on interior floors.
- Can be applied over existing coatings.
- Can be applied continuously.
- Along being mineral based, in non-rigid form.
- Gains strength in time.
- Being white in color, can be tinted.
- High water vapour permeability allowing the building to breathe.
- Long lasting when maintained properly as stated in the Instructions for Use section.

### Instruction for Use

#### Surface Preparation

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.
- Glossy and/or solvent based painted surfaces

should be sanded to improve adhesion and the occurring powder should be removed.

- If necessary, the surface cracks should be filled and the substrate should be evened with Kalekim TAMIRART.

### Wall Application

- Dampen mineral surfaces before application or for a better result prime the surface with Kale SİLASTAR.
- On ceramic tiles covered surfaces, apply the first coat of ARTCRETE then place mesh and apply the second coat before the surface dries. Mesh must be between the two coats.
- ARTCRETE can be applied on concrete or old painted surfaces directly after necessary surface preparation is done.

### Floor Application

- Concrete floors must be evened by MASTAR 10 before application.
- During application on ceramic tiles covered floors mesh should be used between first and second coats. Special care should be taken that mesh remains between the coats.

### Application

- Pour 15 kg ARTCRETE in 4.8-5.4 liters of clean water slowly, mix well until no lumps remain.
- In order to obtain the desired color, ARTCRETE can be tinted by 24 different colors of RENK USTASI.
- Let the mixture mature for 1-3 minutes, then mix again before application.
- ARTCRETE is applied in 2 or 3 coats, with steel trowel. Waiting time between coats is 3-4 hours.
- Glossiness and texture can be obtained by pressing hardly on the final coat using a trowel, or sandpapering the surface 1 day after the application.
- After 2-3 days when the surface thoroughly dries, depending on the purpose of use FINISH COAT ARTCRETE or TECNICA 552/542 must be applied on all over the surface.

### Warnings

- In order to decrease absorption of surface and increase resistance against impacts, depending on the purpose of use, FINISH COAT ARTCRETE or TECNICA 552/542 should be applied periodically.
- Surfaces which are exposed to water frequently

and surfaces which can be exposed to acids, alkali, detergents, sea water or oils must be covered with İZOPUR TRANS.

- FINISH COAT ARTCRETE applied surfaces should be cleaned with damp cloth or neutral cleaners.
- Surface should not be abraded during cleaning.
- 7 and 11 numbered RENK USTASI colors should only be used in interior applications.
- Since more liquid colorant is added to obtain darker colors, the density of mixture will be lower. In such cases, less water should be added.
- No other additives other than the ones stated in instructions for use should be added in the mixture.
- Ensure that the air and surface temperatures are above +5°C and the surface is rain free during application and 24 hours following the application.
- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity, imminent rain or frost.
- In order to avoid overlapping in large areas or after work pauses, masking tape should be used or an adequate number of applicators should be employed to apply the plaster wet-on-wet without interruptions.
- Interior surfaces must not be exposed to heaters or fans directly in order to decrease drying time.
- ARTCRETE must be applied at one time on connected surfaces.
- Joint gaps should be left while applying on large surfaces.
- Application must be done by educated applicators.
- Dispose mixture after 80 minutes.
- Clean tools and hands with water instantly after application.
- Do not inhale its dust and avoid contact with skin and eyes. For more information see the Safety Data Sheet.

### Storage

- Stack maximum 10 layers and store in dry conditions. Avoid freezing and very hot conditions.

### Packaging

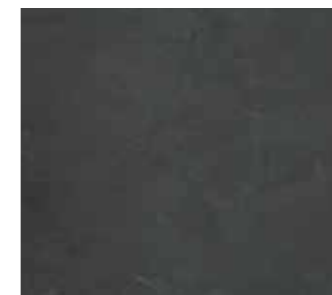
- 15 kg plastic pails (includes 3x5 kg polyethylene bags)

Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Colours	White. Can be tinted.
Composition	Cement based
Tinner	Water
Application Thickness	Total of 2 - 4 mm in 2 or 3 coats.
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Mixture Ratio	1,6 - 1,8 L water / 5 kg powder 4,8 - 5,4 L water / 15 kg powder
Drying Time	Sandpapered after 1 day Lower temperatures and/or higher relative humidity will lengthen the drying process.
Powder Consumption	Depending on the evenness and porosity of the surface total of approx. 1.5 kg/m <sup>2</sup>
Application Tools	Stainless steel trowel, decorative trowel
Pot Life	Approx. 80 minutes
<b>Performance Data</b>	
Service Temperature	(-30°C) - (+80°C)
Bond Strength - Type of Break (TS EN 1015-12)	Min. 1.50 N/mm <sup>2</sup> - FP : B after 28 days
Compressive Strength (TS EN 1015-11)	Min. 15 N/mm <sup>2</sup> - CS IV class after 28 days
Tensile Adhesion Strength (TS EN 1015-11)	Min. 5 N/mm <sup>2</sup> after 28 days
Bulk Density of Hardened Mortar (TS EN 1015-10)	1420 ± 100 kg/m <sup>3</sup>
Capillary Water Absorption (TS EN 1015-18)	≤ 0.20 kg/m <sup>2</sup> dk <sup>0.5</sup> - Wc2
Water Vapour Permeability (μ) (TS EN 1015-19)	≤ 30
Thermal Conductivity (EN 1745)	≤ 0.55 W/m.K (Table Value) P = 50%
Reaction to Fire (TS EN 13501-1)	Class B
Dangerous Substances (TS EN 998-1)	Complies. See Safety Data Sheet.

## Artcrete Colors



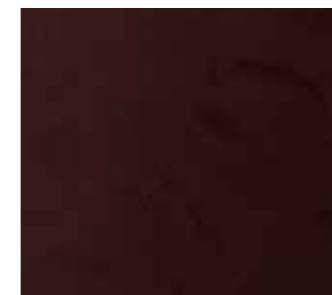
ART 109



ART 106



ART 111



ART 102



# 7329 Finish Coat Artcrete / 7327 Finish Coat Artcrete Matt

Final Coat Primer / Final Coat Primer Matt



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Composition	Acrylic-PU emulsion based	
Appearance	Off-White, Transparent, Matt Liquid	
Density	Approx. 1.03 g/cm <sup>3</sup>	
Tinner	Water	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	Thoroughly dries in 24 hours (Lower temperatures and/or higher relative humidity will lengthen the drying process.)	
Consumption	Depending on the desired effect and porosity of the surface approximately 0.10 – 0.15 L/m <sup>2</sup>	
Application Tools	Brush, roller, sponge	

## Finish Coat Artcrete Colors



ART 109



ART 106



ART 111



ART 102

### Description

Opaque white colored, transparent, semi matt / matt surface protection primer specially designed as the final coat for mineral based decorative coating ARTCRETE.

### Fields of Application

On totally cured ARTCRETE applied surfaces.

### Properties

- Provides resistance against abrasion and scratches.
- Resistant against water; lengthens the life of ARTCRETE.
- Ready to use.
- High water vapour permeability.
- Practically odorless and ecologically compatible.

### Application

- As a ready-to-use final coat primer, ARTCRETE COAT MATT is applied in 2 coats on totally cured ARTCRETE with brush, roller or sponge.
- Clean the tools with water immediately.
- Ensure that the air and surface temperatures are above +5 °C during the application and 24 hours following the application.

### Storage

- Store between (+5°C)-(+35°C).

### Packaging

- 1 L plastic bottle.

# 7800 Artcrete Color Mix

## Pigment Paste Mix



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Composition	Universal concentrated pigment paste	
Colours	14 standard RAL colors	

### Consumption for 15 kg ARTCRETE

COLOR	GR	ML	COLOR	GR	ML
RAL 1015	44	26	RAL 7015	693	548
RAL 1019	134	93	RAL 7035	19	15
RAL 3009*	1.337	890	RAL 7037	218	176
RAL 5001	752	557	RAL 7044	37	28
RAL 5007	296	215	RAL 8004	734	442
RAL 7003	248	183	RAL 8028*	1.565	1.132
RAL 7006	395	287	RAL 9002	11	9

\*RAL 3009 and \*RAL 8028 colours should be used only for wall applications.

### Description

Concentrated pigment paste with high tinting power, specially developed for Kale ARTCRETE Decorative Coating System.

### Fields of Application

• ARTCRETE is mixed with the required amount of ARTCRETE COLOR MIX to obtain the desired color.

### Properties

- In 14 standard RAL colors.
- Concentrated pigment paste.
- Gives standard colour guarantee since color strength is strictly controlled.
- High tinting strength since concentrated.
- Lead free and environmentally friendly.

### Application

- ARTCRETE COLOR MIX is mixed with the required amount of clean water in a large pail.
- In order to have the desired color, the amount of ARTCRETE COLOR MIX to be used are given below:
- ARTCRETE is poured into a prepared color mixture slowly.
- Before application, sample application should be done in order to check the suitability of color.
- Clean the tools with water immediately after application.
- Ensure that the air and surface temperatures are above +5 °C and the surface is rain free during the application and 24 hours following the application.
- In order to avoid from color shade differences, use products with the same batch number.

### Storage

- Store between 5 °C – 35 °C in its unopened bottle.

### Packaging

- 500 mL plastic bottle.
- Bottles are packed together in 4s.

## Artcrete Color Mix Colors



1019

\* 3009

5007

7003

7006

7015

7035

7037

7044

1015

5001

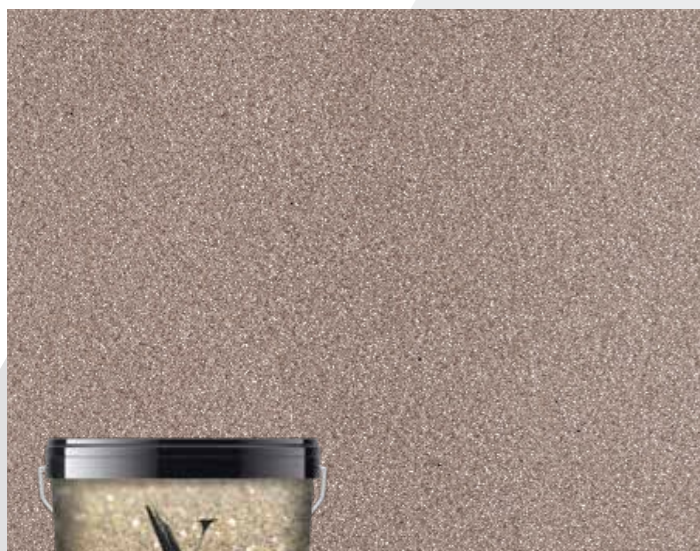
8004

\* 8028

9002

# 7027 Glass Plaster

## Decorative Glass Chip Plaster



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Colours	Available in 28 original colours and transparent	
Composition	Acrylic emulsion based	
Tinner	Water	
Texture	Contains glass chips	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	Surface dry after 24 hours and thoroughly dry after 2 – 3 days. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)	
Consumption	Depending on the evenness of the surface approximately 4.0 - 5.0 kg/m <sup>2</sup>	
Application Tools	Steel trowel	
<b>Performance Data</b>		
TS EN 1062-1 Class	Class E5	
Film Thickness	Class S4	
Largest Grain Size	Class S4	
Water Vapour Transmission	Class V1	
Liquid Water Permeability	Class W3	
Crack Bridging	Class A0	
CO <sub>2</sub> Permeability	Class C0	

### Description

Acrylic emulsion based ready to use plaster with glass particles for interior and exterior use which can be applied by a trowel.

### Fields of Application

• On exterior mineral surfaces such as concrete, mortar, cement panel, etc., on previously painted surfaces and also on interior surfaces for decorative purposes.

### Properties

- Decorative with its glittering appearance.
- Water resistant.
- High water vapour permeability, allowing the building to breathe.
- Alkali resistant.
- Long lasting; resists to UV rays, rain, heat and frost, thus retains its original properties for years without cracking, blistering and fading.
- Solvent free and practically odorless.
- Water thinnable and ecologically compatible.

### Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.
- Old synthetic-based surfaces should be thoroughly sanded and the sand dust should be removed off the surface.
- Plexiglass surfaces should be sanded thoroughly with thick sanding paper, roughened and cleansed off sanding dust.
- Prime the surface with Kale SILASTAR in the same colour shade of the plaster.
- Spread GLASS PLASTER evenly on the surface in the same thickness as the glass particles by using a stainless steel trowel.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C and the surface is rain free during application and during the 24 hours following the application.
- Do not apply in extremely hot weather, under glaring sun, during strong wind, fog, high relative humidity, imminent rain or frost.

- Hot surfaces should be dampened before application.
- In order to avoid differences in shades of colour, care should be taken to use products with the same charge number. In the event products with different charge numbers are to be used, the entire required amount should be mixed prior to application.
- In order to avoid overlapping in large areas or after work pauses, masking tape should be used or an adequate number of applicators should be employed to apply the plaster wet-on-wet without interruptions.

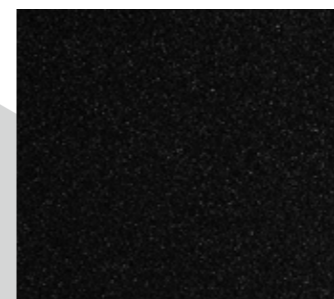
### Storage

- Store between 5 - 35 °C.

### Packaging

- Available in 25 kg pails.

## Glass Plaster Colors



CS 101



CS 102



CS 103



CS 104



CS 105



CS 106



CS 107



CS 108



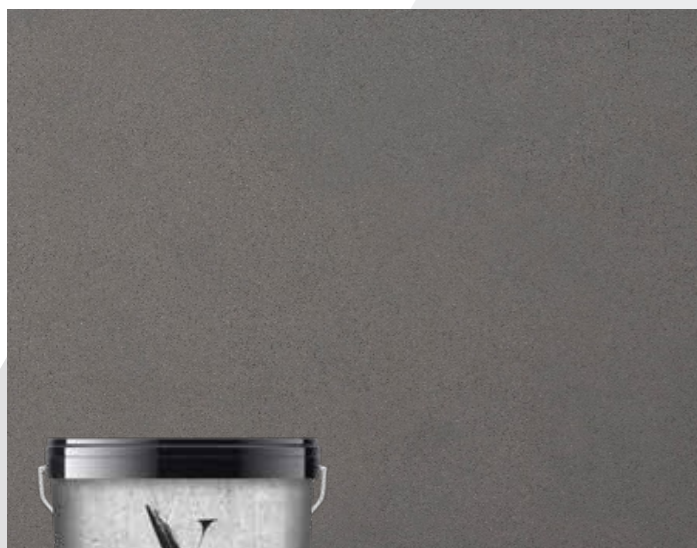
CS 109



CS 110

# 7041 Betonart

Ready Mixed Plaster with Concrete Effect



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Colours	In two colors B183, B185 and thousands of colors possible.	
Composition	Emulsion based	
Tinner	Water	
Texture	Flat, rough	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	Surface dry after 24 hours and thoroughly dry after 2 - 3 days. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)	
Consumption	Depending on the evenness of the surface approximately 0.9 - 1.2 kg/m <sup>2</sup>	
Application Tools	Steel and plastic trowel	
<b>Performance Data</b>		
TS EN 1062-1 Class	Class E5	
Film Thickness	Class S3	
Largest Grain Size	Class S3	
Water Vapour Transmission	Class V2	
Liquid Water Permeability	Class W3	
Crack Bridging	Class A0	
CO <sub>2</sub> Permeability	Class C0	

## Description

Acrylic emulsion based, light, trowel applied, concrete effect interior decorative ready mixed plaster.

## Fields of Application

- On interior mineral surfaces such as concrete, mortar, cement panel, etc., on previously painted surfaces.

## Properties

- Being a topcoat decorative finish, gives concrete effect.
- High water vapour permeability allowing the building to breathe.
- Alkali resistant.
- Solvent free and practically odourless.
- Long lasting.
- In two stock colors of B183 and B185.
- Tintable.

## Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.
- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove occurring powder.
- If necessary, fill the surface cracks and even the substrate with Kale MACUNART, Kale İNCE AKRİLİK MACUN or Kalekim TAMİRART.
- Prime the surfaces with Kale SİLASTER in two coats in suitable color.
- BETONART should be mixed thoroughly. If necessary, BETONART can be thinned by clean water until its viscosity is suitable for application.
- BETONART should be applied homogeneously on surface with steel trowel.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5 °C.

- Hot surfaces should be dampened before application.
- In order to avoid differences in shades of color, products with the same charge number should be used. In the event products with different charge numbers are to be used, the entire required amount should be mixed prior to application.
- In order to avoid overlapping in large areas or after work pauses, masking tape should be used or an adequate number of applicators should be employed to apply the plaster wet-on-wet without interruptions.
- Not suitable for application on surfaces which are exposed to water and high humidity for long time and continuously.

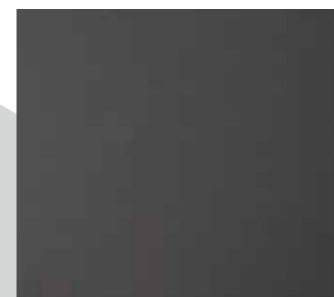
## Storage

- Store between 5 - 35 °C.

## Packaging

- Available in 25 kg pails.

## Betonart Colors



BTN 701



BTN 702



# 7042 Betonart Loft

Concrete Look, Fine Texture, Ready to Use, Colored Plaster



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Colours	In two colors, B183 and B185.
Composition	Cement emulsion based
Tinner	Water, if necessary
Texture	Flat, ragged
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Surface dry after 24 hours and thoroughly dry after 2 - 3 days. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)
Consumption	Depending on the evenness of the surface approximately 0.5 - 1.2 kg/m <sup>2</sup>
Application Tools	Elastic stainless steel trowel
<b>Performance Data</b>	
Service Temperature	(-30°C) - (+80°C)

## Description

Acrylic emulsion based, light, trowel applied, concrete effect with fine texture interior decorative ready mixed plaster.

## Fields of Application

• On interior mineral surfaces such as concrete, mortar, cement panel, etc., on previously painted surfaces.

## Properties

- It provides concrete appearance with different effects thanks to its easily patternable structure.
- Due to its fine texture it has an elegant finish.
- High water vapour permeability allowing the building to breathe.
- Solvent free and practically odourless.
- Long lasting.
- In two stock colors of B183 and B185.

## Application

• The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.

- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove occurring powder.
- In applications on gypsum or concrete panels, it should be ensured that the panels are mounted securely to the wall and to each other and if necessary the gaps between the panels should be filled with the appropriate repair mortar and supported with a mesh.
- If necessary, fill the surface cracks and even the substrate with Kale MACUNART, Kale İNCE AKRİLİK MACUN or Kalekim TAMIRART.
- Prime the surfaces with Kale SİLASTAR in two coats in suitable color.

- BETONART LOFT should be mixed thoroughly. If necessary, BETONART LOFT can be thinned by clean water until its viscosity is suitable for application.
- BETONART LOFT should be applied homogeneously on surface with steel trowel.
- If different patterns and thicknesses are desired, BETONART LOFT can be polished with a trowel and two layers can be applied.
- Clean the tools with water.
- Ensure that the air and surface temperatures are above +5°C.
- Hot surfaces should be dampened before application.

- In order to avoid differences in shades of color, products with the same charge number should be used. In the event products with different charge numbers are to be used, the entire required amount should be mixed prior to application.
- In order to avoid overlapping in large areas or after work pauses, masking tape should be used or an adequate number of applicators should be employed to apply the plaster wet-on-wet without interruptions.
- Not suitable for application on surfaces which are exposed to water and high humidity for long time and continuously.

## Storage

- Store between 5 - 35 °C.

## Packaging

- Available in 25 kg pails.

## Betonart Loft Colors



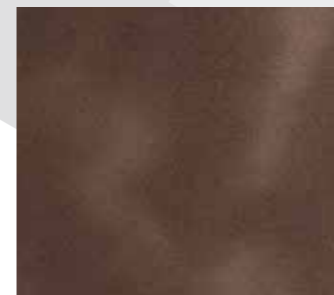
BTL 101



BTL 102



BTL 103



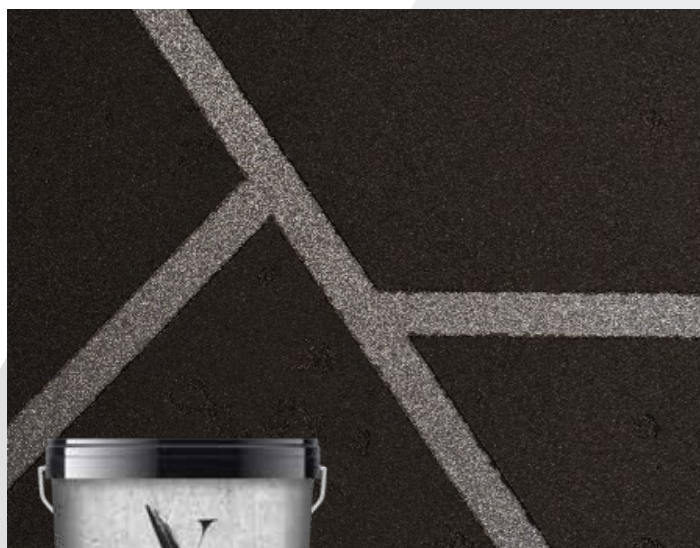
BTL 104



BTL 105

# 7043 Betonart Fresh

Ready Mixed Plaster Absorbing Bad Odor with Concrete Look



Technical Properties		(at 23°C and 50% RH)
<b>General Data</b>		
Colours	In two colors B183, B185 and thousands of colors possible.	
Composition	Emulsion based	
Tinner	Water	
Texture	Flat, rough	
<b>Application Data</b>		
Application Temperature Range	(+5°C) - (+35°C)	
Drying Time	Surface dry after 24 hours and thoroughly dry after 2 - 3 days. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)	
Consumption	Depending on the evenness of the surface approximately 0.8 - 1.2 kg/m <sup>2</sup>	
Application Tools	Steel trowel	

## Description

Acrylic emulsion based, light, trowel applied, concrete effect interior decorative ready mixed plaster balancing humidity level and absorbing bad odor caused by smoke, fried food, etc., and harmful gases.

## Fields of Application

- On interior mineral surfaces such as concrete, mortar, cement panel, etc., on previously painted surfaces.

## Properties

- Absorbs bad odor and balances humidity in interiors by the help of its special formula.
- Being a topcoat decorative finish, gives concrete effect.
- High water vapour permeability allowing the building to breathe.
- Alkali resistant.
- Solvent free and practically odourless.
- Long lasting.
- In two stock colors of B183 and B185.
- Tintable.

## Application

- The substrate must be cleaned from dust, dirt, oil and old blistered coatings that may prevent good adhesion. The surface should be made sound, clean and dry. New cementitious substrates must be cured at least 28 days before application. All water insulation precautions should have been taken prior to application.
- Sand glossy and/or solvent based painted surfaces to improve adhesion and remove occurring powder.
- If necessary, fill the surface cracks and even the substrate with Kale MACUNART, Kale İNCE AKRİLİK MACUN or Kalekim TAMIRART.
- Prime the surfaces with Kale SİLASTAR in two coats in suitable color.
- BETONART FRESH should be mixed thoroughly. If necessary, BETONART FRESH can be thinned by clean water until its viscosity is suitable for application.
- BETONART FRESH should be applied homogeneously on surface with steel trowel.
- Different textures can be given by use of a trowel and a second coat application can be made. Texture should be given by using a plastic trowel.

- Clean the tools with water.
- Ensure that the surface temperature is above + 5 °C.
- Hot surfaces should be dampened before application.
- In order to avoid differences in shades of color, products with the same charge number should be used. In the event products with different charge numbers are to be used, the entire required amount should be mixed prior to application.
- In order to avoid overlapping in large areas or after work pauses, masking tape should be used or an adequate number of applicators should be employed to apply the plaster wet-on-wet without interruptions.
- Not suitable for application on surfaces which are exposed to water and high humidity for a long time and continuously.

## Storage

- Store between 5 - 35 °C.

## Packaging

- Available in 25 kg pails.

## Betonart Fresh Colors



BTNM 201



BTNM 202



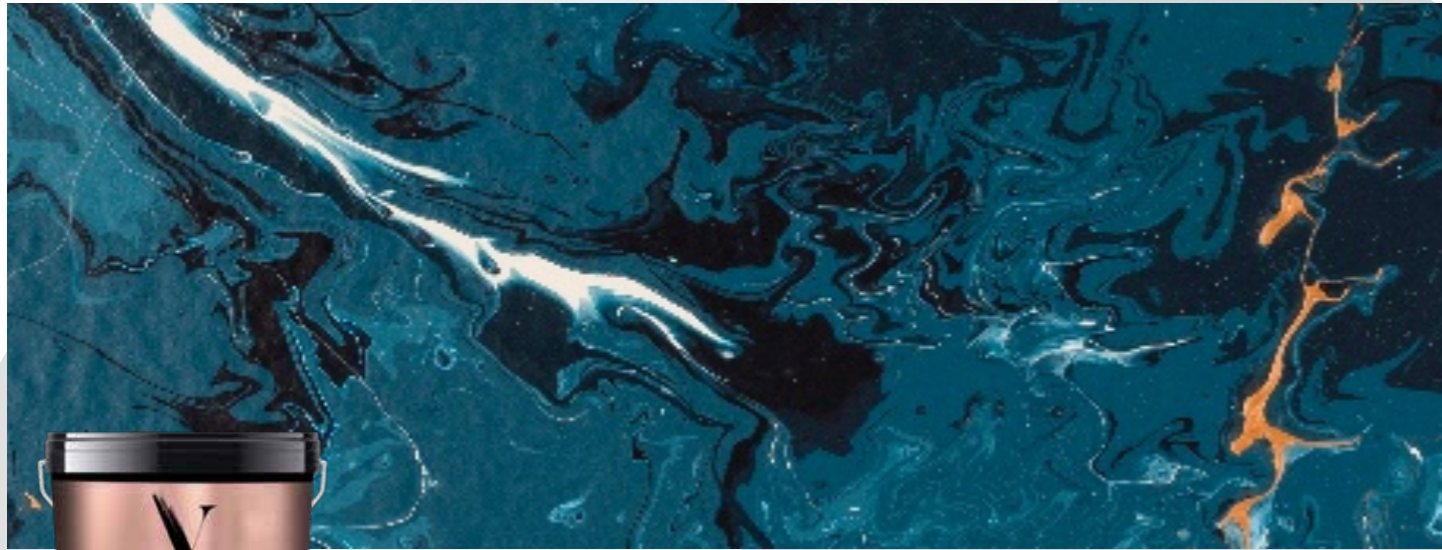
BTNM 203



BTNM 206

# 7230 Vitray Lak

## Multicolor Interior Coating System



Technical Properties	(at 23°C and 50% RH)
<b>General Data</b>	
Composition	Acrylic emulsion based
Tinner	Water
Density	Approx. 1.05 g/cm <sup>3</sup>
<b>Application Data</b>	
Application Temperature Range	(+5°C) - (+35°C)
Drying Time	Thoroughly dry after 24 hours. (Lower temperatures and/or higher relative humidity will lengthen the drying process.)
Consumption	Depending on the evenness and the porosity of the surface approx. 0.100 – 0.150 kg/m <sup>2</sup>
Application Tools	Brush, roller, airless spraying equipment

### Description

Emulsion based, interior wall paint used as the top coat.

### Fields of Application

• Following the application of decorative flakes and also on all kinds of porous, highly absorbent surfaces such as concrete, mortar, gypsum, gypsum panel, putty, etc.

### Properties

- Easy to clean,
- Ready to use,
- When used as primer; reinforces the substrates and decreases the absorbency of the substrate.

### Application

- VITRAY LAK should be applied, without thinning in 1 coat using a brush, roller or spray system.
- To have a matt surface, VITRAY LAK should be thinned with clean water at 1/1 ratio by volume.

### Storage

- Store between 5 – 35 °C in its unopened bottle.

### Packaging

- 2.5 L and 15 L pails.
- 2.5 L packages packed together in 2s.



 	<h2>KALİTE YÖNETİM SİSTEMİ BELGESİ</h2> <h3>QUALITY MANAGEMENT SYSTEM CERTIFICATE</h3>											
<p>TÜRK STANDARLARI ENSTİTÜSÜ bu belge ile</p> <p>KALEKİM KİMYEVİ MADDELER SAN. VE TİC. A.Ş. MERKEZ VE TESİS 1 (İSTANBUL) İŞLETME:FIRUZKÖY MAH. FIRUZKÖY BULVARI NO:188/1 34325 AVCILAR – İSTANBUL / TÜRKİYE</p> <p>kuruluşunun TS EN ISO 9001:2015 şartlarına uygun bir KALİTE YÖNETİM SİSTEMİNE sahip olduğunu onaylar.</p> <p>Belge kapsamı Ek'le verilmiştir</p>  <p><small>Bu belge belgelendirme partneri uygunluk sağlayıcıdır.</small></p>	 <p><b>TÜRK STANDARLARI ENSTİTÜSÜ</b> TURKISH STANDARDS INSTITUTION</p> <p>Istanbul Belgelendirme Müdürü V. Istanbul Vice Certification Manager</p>  <p><b>Dr. Metin Dumanlı</b></p> <p><small>Türk Standartları Enstitüsü Türk Akreditasyon Kurumu TÜRKAKK tarafından akredite edilmiştir. Turkish Standards Institution, has been accredited by the Turkish Accreditation Agency TÜRKAKK.</small></p>	<p>TURKISH STANDARDS INSTITUTION hereby certifies that the organization</p> <p>KALEKİM KİMYEVİ MADDELER SAN. VE TİC. A.Ş. MERKEZ VE TESİS 1 (İSTANBUL İŞLETME):FIRUZKÖY MAH. FIRUZKÖY BULVARI NO:188/1 34325 AVCILAR – İSTANBUL / TÜRKİYE</p> <p>has a QUALITY MANAGEMENT SYSTEM which fulfills the requirements of the TS EN ISO 9001:2015</p> <p>Scope of the certificate is given in annex</p> <table border="1"> <tr> <td>Belge No / Certificate No</td> <td>KY-785-03/KG-98/09-R15</td> </tr> <tr> <td>Belge Tarihi / Date of Certificate</td> <td>21.10.2021</td> </tr> <tr> <td>Geçerlilik Tarihi / Valid Until</td> <td>25.09.2024</td> </tr> <tr> <td>Revizyon Tarihi / Date of Revision</td> <td>21.10.2021</td> </tr> <tr> <td>İlk Belge Tarihi / Initial Certification Date</td> <td>04.08.1998</td> </tr> </table> <p><small>This certificate is valid provided that compliance with the certification requirement is maintained.</small></p>	Belge No / Certificate No	KY-785-03/KG-98/09-R15	Belge Tarihi / Date of Certificate	21.10.2021	Geçerlilik Tarihi / Valid Until	25.09.2024	Revizyon Tarihi / Date of Revision	21.10.2021	İlk Belge Tarihi / Initial Certification Date	04.08.1998
Belge No / Certificate No	KY-785-03/KG-98/09-R15											
Belge Tarihi / Date of Certificate	21.10.2021											
Geçerlilik Tarihi / Valid Until	25.09.2024											
Revizyon Tarihi / Date of Revision	21.10.2021											
İlk Belge Tarihi / Initial Certification Date	04.08.1998											

 	<h2>KALİTE YÖNETİM SİSTEMİ BELGESİ</h2> <h3>QUALITY MANAGEMENT SYSTEM CERTIFICATE</h3> <h4>EK / APPENDIX</h4>	
<p>Belge No / Certificate No: KY-785-03/KG-98/09-R15</p> <p>Belgeli Kuruluş Adı, Adresi:</p> <p>Name and Address of the Certified Organization:</p> <p><b>Belge Kapsamı:</b> TS EN ISO 9001:2015</p> <ul style="list-style-type: none"> <li>-VANİTERGÜLLER</li> <li>-DEKZ DOLGULAR</li> <li>-YALZIN MALZEMELERİ</li> <li>-YÜZETİ MADDELERİ MALZEMELERİ</li> <li>-HANK VE BETON KAPLAMALARI</li> <li>-YÜZEY TEARLILIK VE BAKIM MALZEMELERİ</li> <li>-KÇ VE BİG ÇERME BOYA, KAPLAMA VE BİYALARI</li> <li>-UNİVERSAL RENKLENDİRİCİLER</li> <li>-MASTİK VE KOPİLEKLER</li> <li>-ZEMİN MALZEMELERİ</li> <li>TASARIM ÜRETİM SATIŞ VE PAZARLAMA HİZMETLERİ SİSİSİ</li> </ul> <p>TESİS ADRESLERİ:</p> <p>TESİS 1 (BALIKESİR İŞLETİM): GAZI ÖZMAN PAŞA OSB MAH. 2. CAD. NO:4 ALTİTYEYLÜ - BALIKESİR</p> <p>TESİS 2 (İSPARTA İŞLETİM): SÜLEYMAN DEMİREL OSB 113. CAD. NO:14 GÖNÜLÇÖĞÜN MEYDANI 2700-GÖNÜL - İSPARTA</p> <p>TESİS 4 (YÜZGAT İŞLETİM): KARACAŞAR MAH. KÖPRÜBAŞI MEYDANI KALEBERAMK ÖZEL ORGANİZE SANAYİ BÖLGESİ 6990-YERKÖY - YÜZGAT</p> <p>TESİS 5 (ERZURUM İŞLETİM): ERZURUM 1. OSB 25. SAĞSADI İNO:13 AĞZIYE - ERZURUM</p> <p>TESİS 6 (ERZURUM İŞLETİM): OSB 1. BULVARI 17. CAD. NO:9 İTAPAYON - MERKEZ - MİRSİN</p> <p>TESİS 7 (MERSİN İŞLETİM): KARADUVAR MAH. SEYİST BÖLGE 1. CAD. NO:1143 11002 AĞDENİZ - MERSİN</p> 		<p>Belge Tarihi / Date of Certificate: 21.10.2021</p> <p>KALEKİM KİMYEVİ MADDELER SAN. VE TİC. A.Ş. MERKEZ VE TESİS 1 (İSTANBUL) İŞLETME:FIRUZKÖY MAH. FIRUZKÖY BULVARI NO:188/1 34325 AVCILAR – İSTANBUL / TÜRKİYE</p> <p><b>Scope of the Certificate:</b> TS EN ISO 9001:2015</p> <p>DELIVERY OF BRICK, PRODUCTION, SALES AND MARKETING SERVICES</p> <ul style="list-style-type: none"> <li>-ADRESYER</li> <li>-GRÜNTS</li> <li>-INSULATION MATERIALS</li> <li>-SURFACE PREPARATION MATERIALS</li> <li>-CEMENT AND CONCRETE ADMIXTURES</li> <li>-SURFACE CLEANING - MAINTENANCE MATERIALS</li> <li>-INTERIOR AND EXTERIOR PAINTS, COATINGS, RESIN-BINDING AND PLASTERS</li> <li>-UNIVERSAL COLORANTS</li> <li>-SEALANTS AND FILLERS</li> <li>-FLOORING MATERIALS</li> </ul> <p>FACILITY 2 (BALIKESİR İŞLETİM): GAZI ÖZMAN PAŞA OSB MAH. 2. CAD. NO:4 ALTİTYEYLÜ - BALIKESİR</p> <p>FACILITY 4 (YÜZGAT İŞLETİM): KARACAŞAR MAH. KÖPRÜBAŞI MEYDANI KALEBERAMK ÖZEL ORGANİZE SANAYİ BÖLGESİ 6990-YERKÖY - YÜZGAT</p> <p>FACILITY 5 (ERZURUM İŞLETİM): ERZURUM 1. OSB 25. SAĞSADI İNO:13 AĞZIYE - ERZURUM</p> <p>FACILITY 6 (ERZURUM İŞLETİM): OSB 1. BULVARI 17. CAD. NO:9 İTAPAYON - MERKEZ - MİRSİN</p> <p>FACILITY 7 (MERSİN İŞLETİM): KARADUVAR MAH. SEYİST BÖLGE 1. CAD. NO:1143 11002 AĞDENİZ - MERSİN</p>





**İŞ SAĞLIĞI ve GÜVENLİĞİ YÖNETİM SİSTEMİ BELGESİ**  
OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM CERTIFICATE

Partner of



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**TÜRK STANDARLARI ENSTİTÜSÜ**  
bu belge ile

KALEKİM KİMYEVİ MADDELER SAN. VE TİC. A.Ş.  
MERKEZ VE TESİS 1 (İSTANBUL  
İŞLETME):FIRUZKÖY MAH. FIRUZKÖY BULVARI  
NO:188/1 34325 AVCILAR –  
İSTANBUL / TÜRKİYE

kuruluşunun TS ISO 45001:2018 şartlarına uygun bir İŞ SAĞLIĞI  
ve GÜVENLİĞİ YÖNETİM SİSTEMİNE sahip olduğunu onaylar.

Belge kapsamı Ek'te verilmiştir



**TÜRK STANDARLARI ENSTİTÜSÜ**  
TURKISH STANDARDS INSTITUTION

İstanbul Belgelendirme Müdürü V.  
İstanbul Vice Certification Manager

*Dr. Metin Dumanlı*

Dr. Metin Dumanlı

TURKISH STANDARDS INSTITUTION  
hereby certifies that the organization

KALEKİM KİMYEVİ MADDELER SAN. VE TİC. A.Ş.  
MERKEZ VE TESİS 1 (İSTANBUL İŞLETME):FIRUZKÖY  
MAH. FIRUZKÖY BULVARI NO:188/1 34325 AVCILAR –  
İSTANBUL / TÜRKİYE

has a OCCUPATIONAL HEALTH AND SAFETY  
MANAGEMENT SYSTEM which fulfills the requirements  
of the TS ISO 45001:2018

Scope of the certificate is given in annex

Belge No / Certificate No	OY-398-09/07-R18
Belge Tarihi / Date of Certificate	25.10.2021
Geçerlilik Tarihi / Valid Until	27.10.2024
Revizyon Tarihi / Date of Revision	25.10.2021
İlk Belge Tarihi / Initial Certification Date	28.12.2007

This certificate is valid provided that compliance with the certification requirement is maintained.

Bu belge belgelendirme şartlarına uygunluk sağlandığı sürece geçerlidir.

Bu belge, Türk Standardları Enstitüsü'nün kuruluşu hakkındaki 132 sayılı kanun uyarınca verilmiştir.  
This certificate is issued in accordance with the Law No. 132 establishing Turkish Standards Institution.



**İŞ SAĞLIĞI ve GÜVENLİĞİ YÖNETİM SİSTEMİ BELGESİ**  
OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM CERTIFICATE

EK / ANNEX

Partner of



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Belge No / Certificate No: OY-398-09/07-R18

Belgeyi Kuruluş Adı, Adresi:

Name and Address of the Certified Organization:

**Belge Kapsamı:**  
TS ISO 45001

- YAPISALCIKAR
- DENEY DOLGULAR
- VALİTİM MALZEMELERİ
- YÜZEY HAZIRLIK MALZEMELERİ
- HARC VE BEŞON KATKILARI
- YÜZEY TEMİZLİK VE BAKIM MALZEMELERİ
- İÇ VE DIŞ CEPHE BOYA, KAPLAMA VE İVALLER
- UNİVERSAL RENKLENDİRİCİLER
- MASTİK VE KÖPÜKLER
- ZEMİN MALZEMELERİ
- TASARIM, ÜRETİM, SATIŞ VE PAZARLAMA HİZMETLERİ SUNULMUŞTUR.

TESİS ADRESLERİ:  
TESİS 1 (BALIKESİR İŞLETME):GAZİ OSMAN PAŞA OSB MAH. 2. CAD. NO:9 ALTIEYLÜL - BALIKESİR  
TESİS 2 (İSTANBUL İŞLETME):SÜLEYMAN DEMİREL OSB 113. CAD. NO:14 GÜMÜŞGÜN - İSPARTA  
TESİS 3 (YOZGAT İŞLETME):KARACAŞAR MAH. KÖPRÜBAŞI MEVKİİ KALESERAMİK ÖZEL ORGANİZE SANAYİ BÖLGESİ 66900 YERKÖY - YOZGAT  
TESİS 4 (ERZURUM İŞLETME):ERZURUM 1. OSB EK SAHASI NO:15 AZİZİYE - ERZURUM  
TESİS 5 (MARDİN İŞLETME):OSB 1. BULVAR 17. CAD. NO:8 İSTASYON - MERKEZ - MARDİN  
TESİS 6 (MERSİN İŞLETME):KARADUVAR MAH. SERBEST BÖLGE 14. CAD. NO:11-13 AKDENİZ - MERSİN



Belge Tarihi / Date of Certificate: 25.10.2021


KALEKİM KİMYEVİ MADDELER SAN. VE TİC. A.Ş.  
MERKEZ VE TESİS 1 (İSTANBUL  
İŞLETME):FIRUZKÖY MAH. FIRUZKÖY BULVARI  
NO:188/1 34325 AVCILAR –  
İSTANBUL / TÜRKİYE

**Scope of the Certificate:**  
TS ISO 45001


DELIVERY OF  
DESIGN, PRODUCTION, SALES AND MARKETING SERVICES

- ADHESIVES
- GROUTS
- INSULATION MATERIALS
- SURFACE PREPARATION MATERIALS
- CEMENT AND CONCRETE ADHESIVES
- SURFACE CLEANING - REPAIR/REPAIR MATERIALS
- INTERIOR AND EXTERIOR PAINTS, COATINGS, RENDERINGS AND PLASTERS
- UNIVERSAL COLORANTS
- SEALANTS AND FOAMS
- FLOORING MATERIALS

FACILITY ADDRESSES:  
FACILITY 2 (BALIKESİR İŞLETME):GAZİ OSMAN PAŞA OSB MAH. 2. CAD. NO:9 ALTIEYLÜL - BALIKESİR  
FACILITY 3 (İSPARTA İŞLETME):SÜLEYMAN DEMİREL OSB 113. CAD. NO:14 GÜMÜŞGÜN MEVKİİ - İSPARTA  
FACILITY 4 (YOZGAT İŞLETME):KARACAŞAR MAH. KÖPRÜBAŞI MEVKİİ KALESERAMİK ÖZEL ORGANİZE SANAYİ BÖLGESİ 66900 YERKÖY - YOZGAT  
FACILITY 5 (ERZURUM İŞLETME):ERZURUM 1. OSB EK SAHASI NO:15 AZİZİYE - ERZURUM  
FACILITY 6 (MARDİN İŞLETME):OSB 1. BULVAR 17. CAD. NO:8 İSTASYON - MERKEZ - MARDİN  
FACILITY 7 (MERSİN İŞLETME):KARADUVAR MAH. SERBEST BÖLGE 14. CAD. NO:11-13 AKDENİZ - MERSİN



**TÜRK STANDARLARI ENSTİTÜSÜ**



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**BİLGİ GÜVENLİĞİ YÖNETİM SİSTEMİ BELGESİ**

Kuruluş Adı ve Adresi  
Organisation Name and Address

KALEKİM KİMYEVİ MADDELER SAN. VE TİC. A.Ş.

MERKEZ -TESİS 1: İSTANBUL İŞLETME:FIRUZKÖY MAH. FIRUZKÖY BULVARI NO:188/1 34325 AVCILAR –İSTANBUL  
TESİS 2 BALIKESİR İŞLETME:GAZİ OSMAN PAŞA OSB MAH. 2. CAD. NO:9 ALTIEYLÜL - BALIKESİR  
TESİS 3 İSPARTA İŞLETME:SÜLEYMAN DEMİREL OSB 113. CAD. NO:16 GÜMÜŞGÜN MEVKİİ 32730 GÖNEN -İSPARTA  
TESİS 4 YOZGAT İŞLETME:KARACAŞAR MAH. KÖPRÜBAŞI MEVKİİ KALESERAMİK ÖZEL ORGANİZE SANAYİ BÖLGESİ 66900 YERKÖY - YOZGAT  
TESİS 5 ERZURUM İŞLETME:ERZURUM 1. OSB EK SAHASI NO:15 AZİZİYE -ERZURUM  
TESİS 6 MARDİN İŞLETME:OSB 1. BULVAR 17. CAD. NO:8 İSTASYON - MERKEZ - MARDİN  
TESİS 7 MERSİN İŞLETME:MERSİN SERBEST BÖLGESİ FF ADA 5-6 PARSEL AKDENİZ- MERSİN – TÜRKİYE

**KAPSAM:** TS EN ISO / IEC 27001:2017

Seramik uygulamaları, zemin çözümleri, su yalıtım ve yüzey hazırlık,dış cephe mantolama sistemleri,iç ve dış cephe boya ve kaplama malzemeleri ürün gruplarının tasarım, tedarik zinciri yönetimi, üretim, pazarlama, satış, mimari uygulama ve hizmetleri gümrük ve dış ticaret işlemlerini ve bu işlemlerine ilişkin lojistik, depolama, muhasebe, finans ve bilgi işlem faaliyetlerinin bilgi varlıkları ile bu arlıkları korumak amacıyla kullandığı güvenlik önlemlerini ve bu faaliyetlerin yürütüldüğü tüm idari bina ve tesislere ilişkin güvenliği.

Uygulanabilirlik Bildirgesi Yayın Tarihi: 20.06.2022

**SCOPE:** TS EN ISO / IEC 27001:2017

Tile Application Solutions, flooring Solutions, waterproofing and surface preparation solutions, thermal insulation systems, interior and exterior wall paints and decorative coatings customs and foreign trade transactions of design, supply chain management, production, marketing, sales, architectural application and services of product groups, and information assets of logistics, storage, accounting, finance and information technologies related to these transactions, and security measures taken to protect these assets, and security of all administrative buildings and facilities where these activities are carried out.


Date of Statement of Applicability:20.06.2022

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Belge No / Certificate No	Belge Tarihi / Date of Certificate	Geçerlilik Tarihi / Valid Until	Revizyon Tarihi / Date of Revision
BYS-258/22	18.07.2022	18.07.2025	18.07.2022

Bu belge belgelendirme şartlarına uygunluk sağlandığı sürece geçerlidir.  
This certificate is valid provided that compliance with the certification requirement is maintained.

Bilişim Teknolojileri Belgelendirme Müdürü  
Director of IT Certification Department





MEMBER OF MULTILATERAL  
RECOGNITION ARRANGEMENT




Bilgi Güvenliği YS  
TS EN ISO/IEC 17021-1  
AB-0002-YS

Merve Hatice KARATAŞ

Partner of



1152207202204191028



THE INTERNATIONAL CERTIFICATION NETWORK

Annex to IQNET Certificate Number :TR-BYS-258/22

Name and Address of the certified organization

**KALEKİM KİMYEVİ MADDELER SAN. VE TİC. A.Ş.**

MERKEZ -TESİS 1: (İSTANBUL İŞLETME):FIRUZKÖY MAH. FIRUZKÖY BULVARI NO:188/1 34325 AVCILAR –İSTANBUL TESİS 2 (BALIKESİR İŞLETME):GAZİ OSMAN PAŞA OSB MAH. 2. CAD. NO:9 ALTIEYLÜL - BALIKESİR TESİS 3 (İSPARTA İŞLETME):SÜLEYMAN DEMİREL OSB 113. CAD. NO:16 GÜMÜŞGÜN MEVKİİ 32730 GÖNEN - İSPARTA  
TESİS 4 (YOZGAT İŞLETME):KARACAŞAR MAH. KÖPRÜBAŞI MEVKİİ KALESERAMİK ÖZEL ORGANİZE SANAYİ BÖLGESİ 66900 YERKÖY - YOZGAT TESİS 5 (ERZURUM İŞLETME):ERZURUM 1. OSB EK SAHASI NO:15 AZIZIYE - ERZURUM TESİS 6 (MARDİN İŞLETME):OSB 1. BULVAR 17. CAD. NO:8 İSTASYON - MERKEZ - MARDİN TESİS 7- (MERSİN İŞLETME):MERSİN SERBEST BÖLGESİ FF ADA 5-6 PARSEL AKDENİZ- MERSİN / TÜRKİYE

### Scope of the Certificate

Tile Application Solutions, flooring Solutions, waterproofing and surface preparation solutions, thermal insulation systems, interior and exterior wall paints and decorative coatings customs and foreign trade transactions of design, supply chain management, production, marketing, sales, architectural application and services of product groups, and information assets of logistics, storage, accounting, finance and information technologies related to these transactions, and security measures taken to protect these assets, and security of all administrative buildings and facilities where these activities are carried out.

Date of Statement of Applicability:20.06.2022

This annex is only valid in connection with the above-mentioned certificate



THE INTERNATIONAL CERTIFICATION NETWORK

# CERTIFICATE

TSE has issued an IQNet recognized certificate that the organization:

**KALEKİM KİMYEVİ MADDELER SAN. VE TİC. A.Ş.**

MERKEZ -TESİS 1: (İSTANBUL İŞLETME):FIRUZKÖY MAH. FIRUZKÖY BULVARI NO:188/1 34325 AVCILAR –İSTANBUL TESİS 2 (BALIKESİR İŞLETME):GAZİ OSMAN PAŞA OSB MAH. 2. CAD. NO:9 ALTIEYLÜL - BALIKESİR TESİS 3 (İSPARTA İŞLETME):SÜLEYMAN DEMİREL OSB 113. CAD. NO:16 GÜMÜŞGÜN MEVKİİ 32730 GÖNEN - İSPARTA  
TESİS 4 (YOZGAT İŞLETME):KARACAŞAR MAH. KÖPRÜBAŞI MEVKİİ KALESERAMİK ÖZEL ORGANİZE SANAYİ BÖLGESİ 66900 YERKÖY - YOZGAT TESİS 5 (ERZURUM İŞLETME):ERZURUM 1. OSB EK SAHASI NO:15 AZIZIYE - ERZURUM TESİS 6 (MARDİN İŞLETME):OSB 1. BULVAR 17. CAD. NO:8 İSTASYON - MERKEZ - MARDİN TESİS 7- (MERSİN İŞLETME):MERSİN SERBEST BÖLGESİ FF ADA 5-6 PARSEL AKDENİZ- MERSİN / TÜRKİYE

has implemented and maintains a

INFORMATION SECURITY MANAGEMENT SYSTEM

which fulfills the requirements of the following standard:

**TS EN ISO / IEC 27001:2017**

Issued on: 18-07-2022

Expires on: 18-07-2025

This attestation is directly linked to the IQNet Partner's original certificate and shall not be used as a stand-alone document

Registration Number : TR-BYS-258/22





Alex Stoichitoui  
President of IQNet





Merve Hatice KARATAŞ  
Director of IT Certification Department

IQNet Partners\*:

AENOR Spain AFNOR Certification France APCER Portugal CISQ Italy CQC China CQM China CQS Czech Republic  
Cro Cert Croatia DQS Holding GmbH Germany EAGLE Certification Group USA FCAV Brazil FONDONORMA Venezuela  
ICONTEC Colombia ICS Bosnia and Herzegovina Inspecta Sertifiointi Oy Finland INTECO Costa Rica IRAM Argentina JQA Japan  
KFG Korea LSQA Uruguay MIRTEC Greece MSZT Hungary Nemko AS Norway NSAI Ireland NYCE - SIGE México PCBC Poland  
Quality Austria Austria SHI Israel SIQ Slovenia SIRIM QAS International Malaysia SQS Switzerland SRAC Romania TSE Türkiye YUQS Serbia



## Certificat

**Mortiers et produits connexes**  
**Colle à carrelage - Mortier Colle**

1055 GRANITECH (gris et blanc)

Le CSTB atteste que le produit ci-dessus est conforme à des caractéristiques décrites dans le référentiel de certification QB 11 Mortiers et Produits connexes en vigueur après évaluation selon les modalités de contrôle définies dans ces référentiels.

En vertu de la présente décision, le CSTB accorde à :

**La société** KALEKIM KIMYEVI MADDELER  
 Firuzköy Mah. - Firuzköy Bulvari n°188/1 Avcilar TR - 34325 ISTANBUL  
**Usine** TR - 34325 ISTANBUL

le droit d'usage de la marque Mortiers et produits connexes pour le produit objet de cette décision, pour toute sa durée de validité et dans les conditions prévues par les exigences générales de la marque QB et le référentiel mentionné ci-dessus.



271 MC 485

**Décision de reconduction n° 2918-271 MC 485 du 02 août 2019**  
**Cette décision se substitue à la décision n° 2544-271 MC 485 du 22 mai 2017**  
 Sauf retrait, suspension, ou modification, ce certificat est valide.  
 Le certificat en vigueur peut être consulté sur le site internet <http://evaluation.cstb.fr> pour en vérifier sa validité.

### CARACTÉRISTIQUES CERTIFIÉES

Selon la norme NF EN 12004-1 :

A ce Certificat QB est attachée la classification suivante :  
**C2 - E**

Ce certificat comporte 1 page et 1 page d'annexe.

**Correspondant :**  
 Courriel : [mortiers@cstb.fr](mailto:mortiers@cstb.fr)  
 Tél. : 01 61 44 81 38

Pour le CSTB  
 Pour le Président

Yannick LEMOIGNE



## Certificat

**Mortiers et produits connexes**  
**Colle à carrelage - Mortier Colle**

1054 TECHNOFLEX (gris et blanc)

Le CSTB atteste que le produit ci-dessus est conforme à des caractéristiques décrites dans le référentiel de certification QB 11 Mortiers et Produits connexes en vigueur après évaluation selon les modalités de contrôle définies dans ces référentiels.

En vertu de la présente décision, le CSTB accorde à :

**La société** KALEKIM KIMYEVI MADDELER  
 Firuzköy Mah. - Firuzköy Bulvari n°188/1 Avcilar TR - 34325 ISTANBUL  
**Usine** TR - 34325 ISTANBUL

le droit d'usage de la marque Mortiers et produits connexes pour le produit objet de cette décision, pour toute sa durée de validité et dans les conditions prévues par les exigences générales de la marque QB et le référentiel mentionné ci-dessus.



271 MC 379

**Décision de reconduction n° 3203-271 MC 379 du 05 juin 2023**  
**Cette décision se substitue à la décision n° 3143-271 MC 379 du 20 décembre 2021**  
 Sauf retrait, suspension, ou modification, ce certificat est valide.  
 Le certificat en vigueur peut être consulté sur le site internet <http://evaluation.cstb.fr> pour en vérifier sa validité.

### CARACTÉRISTIQUES CERTIFIÉES

Selon la norme NF EN 12004-1 :

A ce Certificat QB est attachée la classification suivante :  
**C2-S1 - E**

Ce certificat comporte 1 page et 1 page d'annexe.

**Correspondant :**  
 Courriel : [mortiers@cstb.fr](mailto:mortiers@cstb.fr)  
 Tél. : 01 61 44 81 38

**Autres caractéristiques :**

- > Collage de carrelage en façade : **Façade**
- > Collage de carrelage sur plancher rayonnant électrique : **PRE Plancher Rayonnant Electrique**
- > Adhérence sur anciens revêtements sans primaire en sols et en murs intérieurs : **Rénovation sans primaire sur carrelage émaillé**

Par délégation  
 du Président

Florian RASSE





**CSTB**  
le futur en construction

84, avenue Jean-Jaurès  
Champs-sur-Marne  
FR-77447 Marne-la-Vallée  
Cedex 2

Tél. : + 33 (0)1 64 68 82 82  
Fax : + 33 (0)1 60 05 70 37  
E-mail : [etics@cstb.fr](mailto:etics@cstb.fr)  
Site internet : [www.cstb.fr](http://www.cstb.fr)



Member of EOTA  
[www.eota.eu](http://www.eota.eu)

## European Technical Assessment **ETA-18/0688-version 1** of 15/05/2020

### GENERAL PART

<b>Technical Assessment Body issuing the European Technical Assessment:</b>	Centre Scientifique et Technique du Bâtiment (CSTB)
<b>Trade name of the construction product:</b>	<b>Kalekim Thermal Insulation System</b>
<b>Product family to which the construction product belongs:</b>	Product Area Code: 04 External Thermal Insulation Composite System with rendering (ETICS)
<b>Manufacturer:</b>	<b>KALEKIM</b> Firuzkoy Mah. Firuzkoy Bulvari No: 188/1 Avcilar ISTANBUL TURKEY
<b>Manufacturing plant(s):</b>	<b>KALEKIM</b> Firuzkoy Mah. Firuzkoy Bulvari No: 188/1 Avcilar ISTANBUL TURKEY
<b>This European Technical Assessment contains:</b>	14 pages including 3 Annexes which form an integral part of this assessment  Annex 4 contains confidential information and is not included in the European Technical Assessment when that assessment is publicly available
<b>This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of:</b>	European Technical Approval Guideline No 004 (ETAG 004), edition 2013, used as European Assessment Document (EAD)

Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and should be identified as such.

Communication of this European Technical Assessment, including transmission by electronic means, shall be in full (excepted the confidential Annex referred to above). However, partial reproduction may be made, with the written consent of the CSTB. Any partial reproduction has to be identified as such.

## СИСТЕМА СЕРТИФИКАЦИИ ГОСТ Р ФЕДЕРАЛЬНОЕ АГЕНТСТВО ПО ТЕХНИЧЕСКОМУ РЕГУЛИРОВАНИЮ И МЕТРОЛОГИИ



### СЕРТИФИКАТ СООТВЕТСТВИЯ

№ РОСС TR.МН06.Н00035/20

Срок действия с 16.04.2020 по 15.04.2023

№ 0534040

#### ОРГАН ПО СЕРТИФИКАЦИИ

рег.№ RA.RU.11МН06, Орган по сертификации Общества с ограниченной ответственностью "Центр сертификации продукции "Стандарт-Сертилит", 105082, РОССИЯ, город Москва, ул. Почтовая Б., д.55/59, стр.1, оф. 359, Тел: +7 (499) 677-59-77, E-mail: [standart-sertlit@yandex.ru](mailto:standart-sertlit@yandex.ru)

#### ПРОДУКЦИЯ

Декоративная штукатурка, шпатлевка, стяжка и облицовка на цементной и минеральной основе: 4057 FOAMPLAST, 4169 MANTOPLAST, 3601 MANTOMIX, 3602 ANTOSTONE, 4081 MINART SILVER 100, 4082 MINART SILVER 200, 4085 MINART SILVER 300, 4084 MINART DEKOR 300, 5044 IS7ANBUL ANTIQUE, 5328 ARTCRETE, 4001 TAMIRART 5, 4002 TAMIRART 30, 4003 TAMIRART W, 4004 TAMIRART S40, 4201 MASTAR 10, 4210 GROUTART, 4410 TAMIRART AC. Торговые марки: "KALEKIM", "KALE". Серийный выпуск

КОД ОК  
Код ОК 034-2014  
(КПЕС 2008)  
20.30.22

СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ НОРМАТИВНЫХ ДОКУМЕНТОВ  
ГОСТ 33083-2014 .

КОД ТН ВЭД  
3214 90 000 9

#### ИЗГОТОВИТЕЛЬ

"KALEKIM Kimyevi Maddeler Sanayi Ve Ticaret A.S."  
Место нахождения: Турция, Firuzkoy Mah. Firuzkoy Bulvari No:188/1, 34325 Avcilar-Istanbul

#### СЕРТИФИКАТ ВЫДАН

Общество с ограниченной ответственностью "КАЛЕКИМ"  
Место нахождения: 142277, Россия, область Московская, Серпуховский район, деревня Васильевское, 3б. Телефон: +7(925)889-17-33 E-mail: [info@kalekim.ru](mailto:info@kalekim.ru)

#### НА ОСНОВАНИИ

Протокола испытаний № СИ20/15.04-09 от 15.04.2020 года, выданного Лабораторным центром Общества с ограниченной ответственностью «Современные системы качества» (регистрационный номер аттестата аккредитации RU.SSK2.04ЕЛК0).

#### ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ

Место нанесения знака соответствия: на изделии, на упаковке и технической документации.,  
Схема сертификации: Зс.



Руководитель органа


Зам. руководителя А.Ю. Терехин  
инициалы, фамилия

Эксперт

В.И. Морозов  
инициалы, фамилия

Сертификат не применяется при обязательной сертификации

**СИСТЕМА СЕРТИФИКАЦИИ ГОСТ Р**  
ФЕДЕРАЛЬНОЕ АГЕНТСТВО ПО ТЕХНИЧЕСКОМУ РЕГУЛИРОВАНИЮ И МЕТРОЛОГИИ



## СЕРТИФИКАТ СООТВЕТСТВИЯ

№ РОСС TR.MH06.H00040/20

Срок действия с 16.04.2020 по 15.04.2023

№ 0534045

**ОРГАН ПО СЕРТИФИКАЦИИ**  
рег. № RA.RU.11MH06, Орган по сертификации Общества с ограниченной ответственностью "Центр сертификации продукции "Стандарт-Сертилит", 105082, РОССИЯ, город Москва, ул. Почтовая Б., д.55/59, стр.1, оф. 359, Тел: +7 (499) 677-59-77, E-mail: standart-sertlit@yandex.ru

**ПРОДУКЦИЯ**  
Акриловые и полиуретановые клей-герметик и мастики: 8001 KALEMASTIK, 8011-8015 KALESILIKON, 8021 KALEPOLYMAS, 8101 KALEFOAM, 1170 KALESTICK. Торговые марки: "KALEKIM", "KALE"  
Серийный выпуск

код ОК  
Код ОК 034-2014  
(КПЕС 2008)  
20.30.22

**СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ НОРМАТИВНЫХ ДОКУМЕНТОВ**  
ГОСТ 25621-83, ГОСТ Р 57400-2017, ГОСТ 30693-2000


код ТН ВЭД  
3214 10 100 9


**ИЗГОТОВИТЕЛЬ**  
"KALEKIM Kimyevi Maddeler Sanayi Ve Ticaret A.S."  
Место нахождения: Турция, Firuzkoy Mah. Firuzkoy Bulvarı No:188/1, 34325 Avcılar-Istanbul

**СЕРТИФИКАТ ВЫДАН**  
Общество с ограниченной ответственностью "КАЛЕКИМ"  
Место нахождения: 142277, Россия, область Московская, Серпуховский район, деревня Васильевское, 36  
Телефон: info@kalekim.ru Адрес электронной почты: +7(925)889-17-33

**НА ОСНОВАНИИ**  
Протокола испытаний № СИ20/15.04-14 от 15.04.2020 года, выданного Лабораторным центром Общества с ограниченной ответственностью «Современные системы качества» (регистрационный номер аттестата аккредитации RU.SSK2.04EJK0).

**ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ**  
Место нанесения знака соответствия: на изделии, на упаковке и технической документации.,  
Схема сертификации: 3с.


  
 Эксперт

  
 Руководитель органа

Зам. руководителя А.Ю. Терехин  
инициалы, фамилия  
 В.И. Морозов  
инициалы, фамилия

Сертификат не применяется при обязательной сертификации

**СИСТЕМА СЕРТИФИКАЦИИ ГОСТ Р**  
ФЕДЕРАЛЬНОЕ АГЕНТСТВО ПО ТЕХНИЧЕСКОМУ РЕГУЛИРОВАНИЮ И МЕТРОЛОГИИ



## СЕРТИФИКАТ СООТВЕТСТВИЯ

№ РОСС TR.MH06.H.00033/20

Срок действия с 16.04.2020 по 15.04.2023

№ 0534038

**ОРГАН ПО СЕРТИФИКАЦИИ**  
рег. № RA.RU.11MH06, Орган по сертификации Общества с ограниченной ответственностью "Центр сертификации продукции "Стандарт-Сертилит", 105082, РОССИЯ, город Москва, ул. Почтовая Б., д.55/59, стр.1, оф. 359, Тел: +7 (499) 677-59-77, E-mail: standart-sertlit@yandex.ru

**ПРОДУКЦИЯ**  
Краски вододисперсионные на основе акриловых полимеров и силиконовой эмульсии (согласно приложению бланк №0107004)  
Серийный выпуск

код ОК  
Код ОК 034-2014  
(КПЕС 2008)  
20.30.22

**СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ НОРМАТИВНЫХ ДОКУМЕНТОВ**  
ГОСТ 28196-89.


код ТН ВЭД  
3214 90 000 9


**ИЗГОТОВИТЕЛЬ**  
"KALEKIM Kimyevi Maddeler Sanayi Ve Ticaret A.S."  
Место нахождения: Турция, Firuzkoy Mah. Firuzkoy Bulvarı No:188/1, 34325 Avcılar-Istanbul

**СЕРТИФИКАТ ВЫДАН**  
Общество с ограниченной ответственностью "КАЛЕКИМ"  
Место нахождения: 142277, Россия, область Московская, Серпуховский район, деревня Васильевское, 36. Телефон: +7(925)889-17-33 Адрес электронной почты: info@kalekim.ru

**НА ОСНОВАНИИ**  
Протокола испытаний № СИ20/15.04-08 от 15.04.2020 года, выданного Лабораторным центром Общества с ограниченной ответственностью «Современные системы качества» (регистрационный номер аттестата аккредитации RU.SSK2.04EJK0).

**ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ**  
Место нанесения знака соответствия: на изделии, на упаковке и технической документации.,  
Схема сертификации: 3с.

  
 Эксперт

  
 Руководитель органа

Зам. руководителя А.Ю. Терехин  
инициалы, фамилия  
 В.И. Морозов  
инициалы, фамилия

Сертификат не применяется при обязательной сертификации

**СИСТЕМА СЕРТИФИКАЦИИ ГОСТ Р**  
**ФЕДЕРАЛЬНОЕ АГЕНТСТВО ПО ТЕХНИЧЕСКОМУ РЕГУЛИРОВАНИЮ И МЕТРОЛОГИИ**


№ 0107004


**ПРИЛОЖЕНИЕ**

К сертификату соответствия № РОСС TR.МН06.Н.00033/20

Перечень конкретной продукции, на которую распространяется действие сертификата соответствия

код ОК	Наименование и обозначение продукции, ее изготовитель	Обозначение документации, по которой выпускается продукция
код ТН ВЭД		
3209 10 000 9	Краски вододисперсионные на основе акриловых полимеров и силиконовой эмульсии:	
	5163 KALIA IPEK MAT	
	5156 KALIA MAT	
	5158 KALIA CLEAN CARE	
	5167 JOKER PLUS IPEK MAT	
	5169 JOKER PLUS MAT	
	5171 JOKER PLUS PLASTIK	
	5165 ISITUT	
	5161 SUTEN	
	5181 TAVAN PLASTIGI	
	5320 IS7ANBUL SEDEF	
	5321 IS7ANBUL METALIK	
	5322 IS7ANBUL REFLEKTE	
	5326 IS7ANBUL STUCCO SATINE	
	5318 IS7ANBUL ORION	
	5319 IS7ANBUL AURA	
	5111 PROTEKTA	
	5113 PERFORMA NS	
	5110 PERFORMA+	
	5105 PERFORMA	
	5122 JOKER PLUS EXT	
	5116 SILIKONA E	
	5120 SILIKONATEX	
	5190 SUPAR	
	KALE PROFESSIONAL PLASTIK MAT	
	KALE PROFESSIONAL PROMO IC CEPHE	
	KALE PROFESSIONAL SILIKONLU MAT IC CEPHE	
	KALE PROFESSIONAL TAVAN PLASTIGI	
	KALE PROFESSIONAL PROMO DIS CEPHE	
	KALE PROFESSIONAL DIS CEPHE	

Руководитель органа  Зам. руководителя А.Ю. Терехин  
инициалы, фамилия

Эксперт  В.И. Морозов  
инициалы, фамилия



**TÜRKİYE MÜKEMMELLİK ÖDÜLÜ**  
**KAR AMAÇLI KURULUŞLAR KATEGORİSİ**  
**BÜYÜK ÖLÇEKLİ KURULUŞ**  
**2019**  
**TÜRKİYE MÜKEMMELLİK ÖDÜLÜ BERATI**

**KALEKİM KİMYEVİ MAD. SAN. VE TİC. A.Ş.**

Türkiye Mükemmellik Ödülü sürecine katılımınız ülkemizdeki çağdaş kalite anlayışının yaygınlaştırılmasına önemli katkıda bulunmaktadır. Başarılı çalışmalarınızın devamını dileriz.

  
Can BAYKUT  
TMO  
Yürütme Kurulu Başkanı



  
Gökün ÖZDEMİR  
KaiDer  
Yönetim Kurulu Başkanı



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