3029 Ultralastic

Technical Data Sheet

Ultra Flexible Waterproofing and Concrete Protection Mortar

3029 Ultralastic

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;
  - Sub-basements.
  - Underground concrete elements like foundations, retaining walls, basement walls.
  - The soil contacting areas of concrete elements.
  - Places subject to deformation, pedestrian and load traffic.
  - Old bituminous surfaces.
  - Wall interfaces.
  - Balconies and terraces.
  - The areas subject to saline water.
  - Concrete basins subject to sea water and de-icing salts.
  - Permanently wet areas like swimming pools and water basins.
  - Wet areas like bathrooms, showers.
  - 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 trowel.
- Corners and joints should be smoothened 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.

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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 smoothened 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

Quality Certificates

Conforms EN 1542.

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Technical Properties

(at 23°C and 50% RH)

General Data

Appearance	1st component: Grey powder 2nd component: Pink liquid.
Shelf Life (Powder and liquid)	12 months when stored in the original sealed packaging.

Application Data

Application Temperature Range	(+5°C) – (+25°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/m² (1 layer)
Wall Interfaces, Moisture-Proofing, Balconies and Terraces, Brick Surfaces	3.2 kg/m² (2 layer)
Construction Walls	4.5 kg/m² (2 layer)
Soil contacting concrete elements and foundations	6 kg/m² (2 layer)
Waiting Time Between Coats	2 hours
Ready to Use	16 hours

Performance Data

Density	1.5 kg/lt
İmpermeability to Water (for 3 mm thickness)	≥3 bar (positive 28 days)
Adhesion Strength (EN 1542)	≥1 N/mm²
Adhesion Strength After Cycling Without De-icing Salts Immersion (EN 13687-3/ EN 1542)	≥0.8 N/mm²
Adhesion Strength After Heat Ageing (EN 1062-11/EN 1542)	≥0.8 N/mm²
Crack Bridging (EN 1062-7) (21 °C)	≥ 2.5 mm (A5)
Chloride Diffusion (ASTM C1202)	≤ 200 Coulomb (Class: Very low permeability)
Carbondioxide 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/m²h0.5
Heat Resistance	(-40°C) - (+80°C)
Dangerous Substance	See SDS.

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"Please Note: All suggestions and application instructions herein are based on our latest technical experience. Due to a wide variety of individual application conditions, the user alone is responsible for any consequences deriving from the use of the product."