3024 İzolatex Plus

Highly Flexible Waterproofing Mortar

Technical Data Sheet

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.
- 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.

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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

Quality Certificates

CE

EN 14891 Class CMO2P.
EN 1504-2 Class PI, 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)

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Technical Properties

(at 23°C and 50% RH)

General Data

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

Application Data

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 hours
Consumption	1.7 kg/m² (per 1 mm thickness)
Waiting Time Between the Coats	5 - 6 hours
Waiting Time / Overcoatibility	Min. 3 days
Time to Waterproof	7 days

Performance Data

Density	1580±100 kg/m³
Waterproofing Capacity (for 3 mm thickness)	7 bar (positive)
Adhesion Strength (EN 14891)	≥0.50 N/mm²
Adhesion Strength (EN 1542)	≥1.00 N/mm²
Adhesion Strength After Water Immersion (EN 14891)	≥0.50 N/mm²
Adhesion Strength After Freeze-Thaw Cycles (EN 14891)	≥0.50 N/mm²
Adhesion Strength After Cycling Without De-icing Salts Impact (EN 13687-3/ EN 1542)	≥1 N/mm²
Adhesion Strength After Heat Ageing (EN 14891)	≥0.50 N/mm²
Adhesion Strength After Heat Ageing (EN 1062-11/EN 1542)	≥1.00 N/mm²
Adhesion Strength After Contact With Lime Water(EN 14891)	≥0.50 N/mm²
Adhesion Strength After Contact With Chlorinated Water (EN 14891)	≥0.50 N/mm²
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/m²h$^{0.5}$
Heat Resistance	(-40°C) - (+80°C)
Dangerous Substances	See SDS.
Reaction to Fire	European classification Cs1d0

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