

Tile and Ceramic Adhesives / Epoxy Based Adhesives

REPOX® 100

Epoxy Based Marble and Granite Adhesive R2TE

DESCRIPTION

Epoxy resin based, double component, **solvent-free** epoxy **adhesive mortar** with high adhesion strength, resistant to **chemicals** and **bacteria**, easy-to-apply, **can be cleaned with water**, reduced slip with long working time.

APPLICATION AREAS

- Indoor and outdoor,
- Horizontal and vertical applications,
- Hospitals and all kinds of hygienic environments,
- Swimming pools, thermal pools and wet areas,
- Medicine, paint, paper and food industries,
- Printing house, laundries, industrial kitchens and dining halls,
- Places exposed to heavy pedestrian traffic such as shopping malls, terminals,
- Floor heating systems,
- Waste water and treatment facilities,
- Bonding of materials such as ceramic, tiles, marble, granite, ceramic resistant to acids, porcelain ceramic, glass mosaic and glass brick to be used in places listed above, on surfaces such as concrete, plaster and metals.

TECHNICAL PROPERTIES

Appearance - Color	Comp. A (Resin): Thixotropic liquid – grey Comp. B (Hardener): Liquid – yellow								
Packaging	Comp. A: 5 kg, Comp. B: 0,4 kg								
Mixture Density	1.70 ± 0.05 g/cm ³ (TS EN ISO 2811-1)								
Application Temperature	Between +10°C and +30°C								
Shear Adhesion Strength	≥ 2 N/mm ² (EN 12003)								
Extended Open Time Tensile Adhesion Strength	After min. 30 minutes ≥ 0.5 N/mm ² (EN 1346)								
Slip	≤ 0.5 mm (EN 1308)								
Pot Life	<table> <tr> <th>Temperature</th><th>Duration (TS EN ISO 9514)</th></tr> <tr> <td>10°C</td><td>120 minutes</td></tr> <tr> <td>20°C</td><td>60 minutes</td></tr> <tr> <td>30°C</td><td>30 minutes</td></tr> </table>	Temperature	Duration (TS EN ISO 9514)	10°C	120 minutes	20°C	60 minutes	30°C	30 minutes
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10°C	120 minutes								
20°C	60 minutes								
30°C	30 minutes								
Complete Curing Time	7 days (23°C TS 4317)								
Service Temperature	Dry Environment: Between -20°C and +80°C Wet Environment: Between -20°C and +50°C								

ADVANTAGES

- Does not cause mould and fungus formation. Does not have harmful effect on potable water.
- Has long working time, easily cleaned.
- Has high mechanical strength.
- Resistant to various chemicals, corrosive water, organic salts and acids,alkalis and oils.
- Not affected by sudden temperature changes. Resistant to freeze-thaw cycle.

CONSUMPTION

1.70 kg/m² (for 1 mm thickness). According to system solutions, the method of application and its consumption vary depending on the surface's absorption, roughness and application method.

PACKAGING

Sets of 5.40 kg (A+B) tin buckets.

APPLICATION

PREPARATION OF THE SURFACE

- The surface must be sound, level, and clear from loosely bonded particles, dust, oil, tar, bitumen, paint, silicone, curing compounds, detergents, form-release agents, and any other contaminants that may prevent adhesion.
- Seal any active water leakage with AQUASTOP Rapid-Setting Plugging Mortar, and the surface must be dry before application.
- If the surface is concrete, it must be fully cured (minimum 28 days) and have a minimum compressive strength of 25 N/mm² and a minimum pull-off strength of 1.5 N/mm².
- If the surface is metal, it must be free from rust and oil and prepared by abrasive blast cleaning.
- Repair the surface with a suitable REPOX series repair mortar. If necessary, prime the surface with REPOX A Solvent-Free Epoxy Primer prior to application. For damp substrates, use REPOX AH Solvent-Free Moisture-Tolerant Epoxy Primer.
- The surface moisture content must not exceed 4%, and the surface temperature must be at least 3°C above the dew point. The surface temperature should be between +10°C and +30°C.

MIXTURE

- REPOX 100 is supplied as a double component system in correct quantities. Component B (hardener) is supplied inside the packaging of Component A (resin). Before mixing, mechanically stir Component A thoroughly.
- Add 0.4 kg of Component B (hardener) to 5 kg of Component A (resin). Mix for 3–4 minutes using a low-speed electric mixer (400–600 rpm) until a homogeneous consistency is obtained. Avoid excessive mixing time or high mixing speeds to minimize air entrapment.
- Transfer the entire mixture into a clean container and remix briefly. The components are supplied in the correct mixing ratio. If only part of the product is to be used, the specified mixing ratio must be strictly maintained.

APPLICATION

- Before application, allow the mixed material to stand briefly to release any entrapped air.
- Apply REPOX 100 in the same manner as cement-based ceramic tile adhesives.
- Apply REPOX 100 with a notched trowel selected according to the tile size to obtain an adhesive bed approximately 2 mm thick. A notched trowel with a minimum notch size of 4 mm should be used.
- For areas subjected to heavy loads, first press a thin contact layer onto the substrate using the flat side of the trowel. Immediately afterwards, apply the epoxy adhesive with the notched side of the trowel and install the tiles.
- Do not install tiles onto adhesive that has already begun to cure.
- Remove the adhesive residues on the tile surface 15–30 minutes after installation, before the adhesive hardens, using a damp sponge and warm water containing detergent with circular cleaning motions. Replace the sponge when it becomes contaminated.
- Grouting may begin 24 hours after tile installation. REPOX 200 Epoxy Grout should be used for joint filling.
- At +23°C, the product achieves resistance to mechanical loads after 7 days and to abrasive chemical exposure after 14 days.

CAUTION

- Avoid application at temperatures below +10°C and above +30°C.
- Mix REPOX 100 with a suitable mixing drill. Never mix by hand or with a trowel.
- Mix the components of REPOX 100 in the correct proportions. Do not add water, solvent etc. to the mixture.

- Switch the floor heating system off at least 24 hours before application and do not switch on until 72 hours after application.
- Bring all materials into the application area at least 24 hours in advance to allow them to acclimatize to the ambient conditions.
- The working time and curing time of epoxy resin-based products depend on the ambient and surface temperatures. At lower temperatures, the viscosity increases, resulting in higher material consumption. In addition, the chemical reaction slows down, extending both the pot life and the working time. Conversely, at higher temperatures, these periods are shortened.
- If heating is required in the application area, use only electric warm-air heating systems.
- Avoid application in areas that are frozen, at risk of freezing within 24 hours, or in areas open to direct sun and wind.
- Do not allow foot traffic for at least 24 hours after application.
- Protect the surface from water exposure for at least 48 hours after application. Otherwise, carbonation may occur. If carbonation develops, sand the surface and apply a thin additional coat of the product plied.
- Clean all tools and equipment with water immediately after use. Once hardened, the product can only be removed by mechanical means.

SHELF LIFE

Expires in 18 months. Store unopened packages in a cool and dry environment protected from direct sunlight, between +10°C and +25°C. Prevent against freezing. If Component A crystallizes, it may be warmed to 60–70°C to restore its original condition.

HEALTH AND SAFETY

As with all chemical products, avoid contact with food products, skin, eyes and mouth during use and storage. In case of contact with skin, rinse with water. Consult a doctor if accidentally swallowed. During the application, use work clothes, protective gloves and glasses in accordance with the occupational and worker health rules. Do not bring food and beverage into the application areas. Do not approach storage and application areas with fire. Application areas must be ventilated. Store out of the reach of children.

The application instructions and technical values given for the products have been obtained in accordance with our tests and experiences in accordance with international standards at 23±2°C temperature and 50±5% relative humidity conditions. These values may vary depending on ambient conditions. High temperatures shorten the times, low temperatures lengthen them. Before starting the application, the user should test whether the product is suitable for the application and purpose. FIXA Construction Chemicals Ltd. is not responsible. This Technical Data Sheet remains valid until the next revision is published. FIXA reserves the right to change the values specified in this Technical Data Sheet, provided that the new version is published. It is the user's responsibility to check that the document is up-to-date. Please contact our sales department for more information.