



KER 410



KERAPOXY®

Tile and Stone Installation Mortar

Water Cleanable Tile-Setting Epoxy

DESCRIPTION

A water cleanable 100% solids epoxy mortar for installations where exceptionally high strength, chemical and impact resistance is required.

USES

1. For setting ceramic floor and wall tile, quarry tile, acid-resistant floor brick, paver tile, and slate.
2. For industrial, commercial and institutional applications with extremely high mortar strength requirements.
3. For heavy traffic areas such as subway stations, shopping malls and air terminal buildings.
4. For applications requiring high acid and chemical resistance such as dairies, bottling plants, meat processing plants, restaurants, hospitals, schools, pharmaceutical laboratories, intensive care units and animal clinics.
5. For the installation of Rosso Levanto and Negro Marquina marble or green marble, granite or their agglomerates. For all other marble types, use KERABOND/KERALASTIC.

Note: Marble, granite, and slate are products of nature made from a vast combination of minerals and chemicals which may cause the material to behave or react in a manner beyond our control. Neither do we have control over any of the materials and process used in the manufacturing of agglomerates. Therefore, determine the suitability of all the materials before proceeding with the installation.

6. For use over properly prepared concrete, masonry block, cement mortars or levelling coats, brick, exterior grade plywood (interior residential dry floors and countertops only), cementitious backer units, terrazzo and properly prepared existing ceramic tile.

LIMITATIONS

1. Epoxy mortar thickness shall not exceed 1/4" (6 mm) under the tile.
2. **Do not** use as a MORTAR on exterior installations.
3. The temperature of the tilework or substrate must be between 60°F (15°C) and 90°F (32°C) while spreading and should be maintained at that level until KERAPOXY® has hardened sufficiently (24 to 72 hours).
4. **Do not** use in areas subject to excessive heat. Once cured, KERAPOXY® will resist temperatures up to 212°F (100°C).
5. **Do not** apply over particleboard, masonite, chipboard, Lauan, gypsum floor patching compounds, metal or similar dimensionally unstable substrates.

RECOMMENDED SUBSTRATES

- Fully cured concrete (at least 28 days old)
- Masonry block
- Brick
- Exterior grade plywood (interior residential floor and countertop applications in dry areas only)
- Cementitious backer units
- Properly prepared existing ceramic tile
- Properly prepared cement terrazzo

SETTING INSTRUCTIONS

1. **Surface preparation**
SEE SURFACE PREPARATION SHEET [A].
2. **Mixing**
 - 2.1 Wear rubber gloves and avoid skin contact during mixing, application and cleaning.
 - 2.2 PARTS A & B are packaged to EXACT QUANTITY RATIOS for proper curing.
 - 2.3 POUR ALL MATERIAL out of the Part B container into the Part A(paste). To improve flowability and texture, allow enough time for the material to flow completely out of the container. Always mix complete units. **Do not** add other materials to this mixture.
 - 2.4 Use a slow speed mixer, approximately 300 RPM, or manually mix smaller kits with a margin trowel.
 - 2.5 Avoid air entrapment and prolonged mixing which will shorten the pot life.
 - 2.6 Mix thoroughly until a homogeneous, consistent color is obtained.
 - 2.7 Wash all tools and hands IMMEDIATELY with water before epoxy hardens. KERAPOXY® IS EXTREMELY DIFFICULT TO REMOVE ONCE CURED.
 - 2.8 **Do not** place the lid on the container after material has been mixed.

TECHNICAL DATA		
Pot life at 72°F (22°C)	1 hour	
Open time at 72°F (22°C)	2 hours	
Initial set	24 hours	
Final cure at 72°F (22°C)	14 days	
Shear strength:	>1000 psi	
Compressive strength:		
CLEANABILITY		
With water while fresh. Consult MAPEI's Technical Department for removal of hardened epoxy.		
PACKAGING:	Part A	Part B (colors)
3 gal. kit	3 gal (11.4 L)	549 oz. (1554 g)
SHELF LIFE		
12 - 18 months when stored in original, sealed containers at room temperature 70°F (21°C).		

3. Application as a mortar

- 3.1 Remove the mixed product from the container and place in piles on the floor. KERAPOXY® is a thermosetting product; that is, it sets up faster in a container or large mass.
- 3.2 Use the recommended notched trowel (see chart), with sufficient depth to ensure proper epoxy mortar transfer, covering 100% of the tile back.
- 3.3 Using the flat or straight edge of the trowel (see chart), apply a thin, pressure-applied coat to the substrate. Follow immediately with additional material, then comb the surface using the notched side of the trowel to achieve an even setting bed.
- 3.4 The entire substrate should be covered, leaving no bare areas between the ridges.
- 3.5 Do not spread more epoxy mortar than can be covered with ceramic tiles immediately. Set tiles dry (do not soak tiles before application).
- 3.6 Place tiles firmly into position with a slight twisting motion to ensure good contact with the epoxy mortar.
- 3.7 Follow IMMEDIATELY with proper and thorough beat-in to flatten the ridges or notches into a continuous bed, allowing at least 25% of the thickness of each tile to be embedded into the epoxy mortar. Following this procedure will minimize air bubbles from reaching the surface and causing

pinholes during grouting.

- 3.8 Make all alignments or adjustments immediately following beat-in.
- 3.9 Remove smudges from the tile face immediately with a clean sponge and water.
- 3.10 Do not disturb, grout or walk over tiles for at least 24 hours.
- 3.11 Wash tools and hands immediately with water while material is still fresh.

4. Expansion and control joints

- 4.1 Provide for expansion and control joints where specified.
- 4.2 Do not cover or bridge any expansion joints with epoxy mortar.
- 4.3 Plan installation so tiles line up on one side of the control or expansion joints.
- 4.4 Protect tilework with metal strips along both edges of structural building expansion joints.
- 4.5 Insert sealant manufacturer's specified compressible bead and sealant for expansion and control joints.

7. Protection

Once cured, KERAPOXY® becomes a high performance, chemical resistant mortar and grout. For best results, adhere to the recommended guidelines listed in the following chart.

Under normal room (70°F / 21°C) conditions:	
Protect from:	For at least
Light foot traffic	24 hours
Normal traffic	72 hours
Routine cleaning materials	72 hours
Heavy traffic	7 days
Water immersion	21 days
Food products and chemicals which can cause stains	10-14 days
Chemical attack	14 days

NOTICE

We shall not be liable for incidental and consequential damages, as defined under the uniform commercial code, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instruction or for other than the intended use. Before using, user shall determine the suitability of the product for its intended use and user alone assumes all risks and liability whatsoever in connection therewith. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from date it was, or reasonably should have been discovered.

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