



Porcelain Tile Mortar

Polymer-Enriched Thin-Set Mortar



DESCRIPTION

Porcelain Tile Mortar is a regular-setting, polymer-enriched ("modified") mortar for installing a wide range of tile and stone over a diverse range of substrates in thin-set applications.

FEATURES AND BENEFITS

- Higher polymer content provides a stronger bond, with a wider range of tile and stone to a wider range of substrates.
- Allows tile over existing tile installation to save time
- Smooth and creamy consistency for easy application
- Mix with water only.

INDUSTRY STANDARDS AND APPROVALS

- ANSI: Exceeds ANSI A118.4E and ANSI A118.11 bond strength requirements

LEED v3 Points Contribution LEED Points

MR Credit 5, Regional Materials* Up to 2 points

IEQ 4.1, Low-Emitting Materials – Adhesives & Sealants 1 point

IEQ 4.3, Low-Emitting Materials – Flooring Systems 1 point

** Using this product may help contribute to LEED certification of projects in the categories shown above. Points are awarded based on contributions of all project materials.*

SUITABLE TILE OR STONE

- For porcelain, ceramic, quarry and Saltillo tile, pavers and most types of marble, granite and natural stone
- Best for small tile or stone and up to 15" x 15" (38 x 38 cm)

SUITABLE SUBSTRATES (properly prepared)

- Concrete (cured at least 28 days)
- Masonry cement block, brick, cement mortar beds and leveling coats
- Cement backer units (CBUs) (see manufacturer's installation guidelines)
- Gypsum wallboard – interior walls in dry areas only (see the "Surface Preparation" section)
- APA and CANPLY Group 1 exterior-grade plywood (interior, residential and light commercial in dry conditions only)
- Properly prepared vinyl composition tile (VCT) and cutback residue (interior only)
- Properly prepared existing ceramic and porcelain tile, quarry tile and pavers (interior only)
- MAPEI waterproofing, crack-isolation and sound-reduction membranes

Contact MAPEI's Technical Services Department for installation recommendations concerning substrates or conditions not listed.



WHERE TO USE

- Most interior/exterior residential installations on floors and walls
- Most interior/exterior commercial installations on floors
- Most interior commercial installations on walls

LIMITATIONS

- Install only at temperatures between 40°F and 95°F (4°C and 35°C).
- Do not use for moisture-sensitive stone such as green marble, Rosso Levanto (red marble), Negro Marquina (black marble), some limestone, green granite, agglomerate tiles, cultured marble or resin-backed tiles. Instead, use a suitable epoxy or urethane adhesive. See the respective Technical Data Sheet for more information.
- Do not use over dimensionally unstable substrates such as hardwood flooring, oriented strand board (OSB), substrates containing asbestos, or metal. See the "Suitable Substrates" section.
- To use directly over gypsum-based patching or leveling substrates, apply suitable primer before use (see the "Surface Preparation" section).
- Installations of tile over nonporous surfaces (waterproofing membranes, sheet membranes, existing tile, etc.) may require extended setting/curing times.
- Use a white mortar when installing light-colored stones and translucent marble.
- Do not use for installations subject to prolonged water immersion.
- Not recommended for areas subject to severe freeze/thaw conditions. Instead, mix MAPEI's *Polymer Additive* with an appropriate thin-set mortar.

SURFACE PREPARATION

- All substrates should be structurally sound, stable, dry, clean, and free of any substance or condition that may reduce or prevent proper adhesion.
- See MAPEI's "Surface Preparation Requirements" document in the Reference & Installation Guides section of the Tile & Stone Installation Systems page on MAPEI's Website.

MIXING

Choose all appropriate safety equipment before use. Refer to the Safety Data Sheet for details.

1. Into a clean mixing container, pour the following amounts of clean water according to the bag sizes indicated:

For 10-lb. (4,54-kg) bag:

About 1 to 1.2 U.S. qts. (0,95 to 1,14 L) of clean water

For 25-lb. (11,3-kg) bag:

About 2.5 to 3 U.S. qts. (2,37 to 2,84 L) of clean water

For 50-lb. (22,7-kg) bag:

About 1.25 to 1.5 U.S. gals. (4,73 to 5,68 L) of clean water

2. Gradually add powder while slowly mixing using an electric drill with an angled cross-blade mixer or double-box mixer.
3. Continue low-speed mixing (at about 300 rpm) for about 5 minutes for 25-lb. or 50-lb. (11,3-kg or 22,7-kg) bags (or about 3 minutes for a 10-lb. [4,54-kg] bag) until the mixture becomes a smooth, lump-free paste. Avoid prolonged mixing.
4. Let the mixture stand for 10 minutes.
5. Remix for 2 minutes.
6. If the mixture becomes heavy or stiff within 2 hours, remix without adding more liquid.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. Choose a typical notched trowel (see the "Approximate Coverage" chart) with sufficient depth to achieve more than 80% mortar contact to both the tile and substrate for all interior applications, and more than 95% for exterior installations, commercial floor and wet applications. It may be necessary to back-butter the tile in order to meet these requirements. (Refer to ANSI A108.5 specifications and TCNA handbook guidelines.)
2. With pressure, apply a coat by using the trowel's flat side to key mortar into the substrate.
3. Apply additional mortar, combing it in a single direction with the trowel's notched side.
4. Spread only as much mortar as can be tiled before the product skins over. Open time can vary with jobsite conditions.
5. Place tiles firmly into the wet mortar. Push tiles back and forth in a direction perpendicular to trowel lines, to collapse the mortar ridges and help achieve maximum coverage. Periodically lift a few tiles to check for acceptable coverage.
6. Remove excess mortar from the joint areas so at least 2/3 of the tile depth is available for grouting (see ANSI A108.10 guidelines).

EXPANSION AND CONTROL JOINTS

- Provide for expansion and control joints as specified per TCNA Detail EJ171.
- Do not cover any expansion joints with mortar.

CLEANUP

- While mortar is fresh, clean tools and tile with water.

ANSI Specification

Test Method	Specification Standard	Test Results
ANSI A118.4 – shear strength, impervious ceramic (porcelain) mosaics	> 200 psi (1,38 MPa) at 28 days	275 to 350 psi (1,90 to 2,41 MPa)
ANSI A118.4 – shear strength, glazed wall tile	> 300 psi (2,07 MPa) at 28 days	400 to 550 psi (2,76 to 3,79 MPa)
ANSI A118.4 – shear strength, quarry tile to quarry tile	> 150 psi (1,03 MPa) at 28 days	325 to 400 psi (2,24 to 2,76 MPa)
ANSI A118.11 – shear strength, quarry tile to plywood	> 150 psi (1,03 MPa) at 28 days	Pass

Shelf Life and Application Properties at 73°F (23°C) and 50% relative humidity



Shelf life	1 year when stored in original, unopened packaging
Open time*	30 minutes
Pot life*	> 2 hours
Time before grouting*	16 to 24 hours
VOCs (Rule #1168 of California's SCAQMD)	0 g per L

* Open time, pot life and time before grouting vary based on jobsite conditions.

Packaging

Size and Color
Bag: 10 lbs. (4,54 kg), gray
Bag: 25 lbs. (11,3 kg), gray
Bag: 25 lbs. (11,3 kg), white
Bag: 50 lbs. (22,7 kg), gray
Bag: 50 lbs. (22,7 kg), white

Approximate Coverage**

Typical Trowel	Coverage for 50 lbs. (22,7 kg)
1/4" x 1/4" x 1/4" (6 x 6 x 6 mm) 	75 to 90 sq. ft. (6,97 to 8,36 m ²)
1/4" x 3/8" x 1/4" (6 x 10 x 6 mm) 	55 to 65 sq. ft. (5,11 to 6,04 m ²)

Typical Trowel	Coverage for 25 lbs. (11,3 kg)
1/4" x 1/4" x 1/4" (6 x 6 x 6 mm)	38 to 45 sq. ft. (3,53 to 4,18 m ²)
1/4" x 3/8" x 1/4" (6 x 10 x 6 mm)	28 to 33 sq. ft. (2,60 to 3,07 m ²)

Typical Trowel	Coverage for 10 lbs. (4,54 kg)
1/4" x 1/4" x 1/4" (6 x 6 x 6 mm)	15 to 18 sq. ft. (1,39 to 1,67 m ²)
1/4" x 3/8" x 1/4" (6 x 10 x 6 mm)	11 to 13 sq. ft. (1,02 to 1,21 m ²)

** Trowel dimensions are width/depth/space. Actual coverage will vary according to substrate profile and tile type.

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PROTECTION

- Protect from foot traffic 16 to 24 hours before grouting.
- Protect from heavy traffic, frost and rain for 7 days.

Refer to the SDS for specific data related to health and safety as well as product handling.

STATEMENT OF RESPONSIBILITY

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.

ANY CLAIM SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING TO US WITHIN FIFTEEN (15) DAYS FROM DATE IT WAS, OR REASONABLY SHOULD HAVE BEEN, DISCOVERED.

We proudly support the following industry organizations:



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Edition Date: December 10, 2015

PR: 6400 MKT: 15-2366

For the most current **BEST-BACKED™** product data and warranty information, visit www.mapei.com.

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