



Mosaic & Glass Tile Mortar

Polymer-Enriched Thin-Set Mortar



DESCRIPTION

Mosaic & Glass Tile Mortar is regular-setting, polymer-enriched ("modified"), bright white, multipurpose mortar designed for installing sheet-mounted mosaic glass or stone tiles or individual tiles in thin-set applications.

FEATURES AND BENEFITS

- Nonsag performance: Great for sheet-mounted mosaics where final alignment is critical
- Bright white color enhances the appearance of transparent or translucent glass or stone tile.
- Can be mixed with MAPEI's *Polymer Additive* (instead of water) for increased performance and installation of tile in submerged applications

INDUSTRY STANDARDS AND APPROVALS

When mixed with water

- Exceeds ANSI A118.4 and ANSI A137.2 bond strength requirements

When mixed with undiluted *Polymer Additive* (instead of water)

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

SUITABLE TILE OR STONE

- Sheet-mounted mosaics (glass, ceramic, porcelain or stone), individual ceramic and porcelain tile, glass tile up to 6" x 6" (15 x 15 cm), quarry tile, pavers, Saltillo tile, and most types of marble, granite and natural stone up to 15" x 15" (38 x 38 cm)

SUITABLE SUBSTRATES

When mixed with water

- 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 and plaster— interior walls in dry areas only (see "Surface Preparation" section below)

When mixed with *Polymer Additive*

- All the substrates listed above
- APA and CANPLY Group 1 exterior-grade plywood (interior, residential and light commercial in dry conditions only)
- Properly prepared existing ceramic and porcelain tile, cement terrazzo, quarry tile and pavers (interior and dry conditions only)
- MAPEI waterproofing, crack-isolation and sound-reduction membranes

Note: Glass tile may not be suitable over some of the above substrates (such as plywood). Consult the recommendations of the TCNA and the glass tile manufacturer regarding glass tile installations over these substrates or membranes.

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

WHERE TO USE

When mixed with water

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

When mixed with undiluted *Polymer Additive* (instead of water)

- All the uses listed above
- Submerged installations (pools, fountains, water features)
- Most exterior commercial installations on walls

LIMITATIONS

- Install 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 suitable epoxy or urethane adhesives. See respective Technical Data Sheets for more information.
- Do not use over dimensionally unstable substrates such as hardwood flooring, oriented strand board (OSB), substrates containing asbestos, or metal. See "Surface Preparation" section below.
- To use directly over gypsum-based patching or leveling substrates, apply suitable sealer before use. See "Surface Preparation" section below.
- Installations of tile over nonporous surfaces, such as waterproofing membranes and existing tile, may require extended setting/curing times.
- Do not use for glass tile with a decorative coating on the tile backing.
- Do not use for setting glass tile larger than 6" x 6" (15 x 15 cm).
- When mixed with water, do not use for installations subject to prolonged water immersion.
- Not recommended for areas subject to severe freeze/thaw conditions when mixed with water. Instead, mix *Mosaic & Glass Tile Mortar* with undiluted *Polymer Additive* for installations subject to severe freeze/thaw conditions.
- Consult local building code requirements for use on exterior commercial facades.

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 "Surface Preparation Requirements" document for tile and stone installation systems at www.mapei.com.

MIXING

Before starting, take appropriate safety precautions and choose all appropriate safety equipment. See Material Safety Data Sheet (MSDS) for product details at www.mapei.com.

1. Into a clean mixing container, pour about 1.5 to 1.7 U.S. qts. (1,42 to 1,61 L) of clean water (or *Polymer Additive*).
2. Gradually add 10 lbs. (4,54 kg) of 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 3 minutes until mixture becomes a smooth, lump-free paste. Avoid prolonged mixing.
4. Let mixture stand for 10 minutes.

5. Remix for 2 minutes.
6. If mixture becomes heavy or stiff within 2 hours, remix without adding more liquid.

APPLYING

1. Consult the glass tile manufacturer's specifications to verify product suitability for specific installations and installation procedures.
2. Choose a typical notched trowel (see chart) with sufficient depth to achieve > 80% mortar contact to both the tile and substrate for all interior applications; and > 95% for exterior installations, commercial floor and wet applications. It may be necessary to back-butter tile/stone in order to reach these requirements. Glass-tile installations require 100% continuous coverage. (Refer to ANSI A108.5 specifications and TCNA Handbook guidelines.)
3. With pressure, apply a coat by using the trowel's flat side to key mortar into substrate.
4. Apply additional mortar, combing it in a single direction with the trowel's notched side. For glass tile and mosaics, knock down the trowel ridges to ensure that they do not show through translucent tiles.
5. Spread only as much mortar as can be tiled before product skins over. Open time can vary with jobsite conditions.
6. Place the tiles firmly into the wet mortar. Push the tiles back and forth in a direction perpendicular to trowel lines, to collapse the mortar ridges and to help achieve maximum coverage. Ensure proper contact between mortar, tile and substrate by periodically lifting a few tiles to check for acceptable coverage.
7. Follow immediately with a proper beating-in of the tile to flatten ridges or notches. For the installation of sheet-mounted glass and marble mosaics, after using light pressure to establish contact with the fresh mortar, lightly tap the tile with a rubber-faced beating block and mallet.
8. Remove excess mortar from the joint areas so that at least 2/3 of the tile depth is available for grouting (see ANSI A108.10 guidelines). Remove all mortar from glass tile surface.

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.

PROTECTION

- Protect from foot traffic for 24 hours before grouting.
- Protect from heavy traffic, frost and rain for 7 days.
- Glass tile requires at least 21 days of curing time after grouting before water submersion.

Product Performance Properties

ANSI Specification – when mixed with water

Test Method	ANSI Specification	Test Results
ANSI A118.4 – shear strength impervious ceramic (porcelain) mosaics	> 200 psi (1,38 MPa) at 28 days	200 to 280 psi (1,38 to 1,93 MPa)
ANSI A118.4 – shear strength glazed wall tile	> 300 psi (2,07 MPa) at 28 days	425 to 640 psi (2,93 to 4,41 MPa)
ANSI A118.4 – shear strength quarry tile to quarry tile	> 150 psi (1,03 MPa) at 28 days	255 to 425 psi (1,76 to 2,93 MPa)

ANSI Specification – when mixed with Polymer Additive

Test Method	ANSI Specification	Test Results
ANSI A118.4 – shear strength, impervious ceramic (porcelain) mosaics	> 200 psi (1,38 MPa) at 28 days	200 to 400 psi (1,38 to 2,76 MPa)
ANSI A118.4 – shear strength, glazed wall tile	> 300 psi (2,07 MPa) at 28 days	490 to 780 psi (3,38 to 5,38 MPa)
ANSI A118.4 – shear strength, quarry tile to quarry tile	> 150 psi (1,03 MPa) at 28 days	420 to 640 psi (2,90 to 4,41 MPa)
ANSI A118.11 – shear strength, quarry tile to plywood	>150 psi (1,03 MPa) at 28 days	150 to 250 psi (1,03 to 1,72 MPa)

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

Shelf life	1 year
Open time*	20 to 30 minutes
Pot life*	> 2 hours
Time before grouting	24 to 48 hours
VOCs (Rule #1168 of California's SCAQMD)	0 g/L

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

Packaging

Product Code	Size and Color
15410136	10 lbs. (4,54 kg), bright white

Approximate Product Coverages* per 10 lbs. (4,54 kg)

Typical Trowel	Coverage
1/8" x 3/16" x 1/8" (3 x 4,5 x 3 mm) 	18 to 24 sq. ft. (1,67 to 2,23 m²)
1/4" x 1/4" x 1/4" (6 x 6 x 6 mm) 	16 to 20 sq. ft. (1,49 to 1,86 m²)
1/4" x 3/8" x 1/4" (6 x 10 x 6 mm) 	11 to 14 sq. ft. (1,02 to 1,30 m²)

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Refer to MAPEI's Material Safety Data Sheet (MSDS) for specific data related to VOCs, health and safety, and handling of product.

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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