



Adesilex™ P10 Mosaic & Glass Tile Mortar with Polymer

Premium Mosaic and Glass Tile Mortar with Polymer



When mixed with *Keraply*®



DESCRIPTION

Adesilex P10 Mosaic & Glass Tile is a premium-grade, bright white, multipurpose thin-set mortar formulated with non-sag properties. *Adesilex P10 Mosaic & Glass Tile* is designed for glass tile, glass mosaic and marble mosaic, and is ideal for light translucent natural stone.

FEATURES AND BENEFITS

- Non-sag performance
- Great for sheet-mounted mosaics
- Quality-controlled color matching for consistent, bright white color
- Mix with *Keraply* for increased performance and submerged installations.

INDUSTRY STANDARDS AND APPROVALS

- ANSI: Exceeds ANSI A118.4TE bond strength requirements when mixed with water; exceeds ANSI A118.4TE and ANSI A118.11 bond strength requirements when mixed with *Keraply*
- ISO 13007: Classification C2TE when mixed with water; classification C2TES1P1 when mixed with *Keraply*

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.
- Installation of ceramic and porcelain tile, glass tile, quarry tile, pavers, Saltillo tile, and most types of marble, granite and natural stone

When mixed with *Keraply*

- The uses listed above
- Installations subject to water immersion
- Most exterior, commercial installations on walls
- Installation of large-format glass tile

LIMITATIONS

- Install at temperatures between 40°F and 95°F (4°C and 35°C).
- Do not use for moisture-sensitive stone (green marble, some limestone and some granite), agglomerate tiles made of moisture-sensitive stone pieces, or resin-backed tiles. Instead, use suitable epoxy or urethane adhesives (see the respective Technical Data Sheet for details).
- 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 below.
- To use directly over gypsum-based patching or leveling substrates, apply a suitable sealer/primer before use. See the technical bulletin "Tiling over gypsum" in the Related Documents section of the Tile & Stone Installation Systems page on MAPEI's Website.
- Installations 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.
- For large-format glass tile, see the technical bulletin "Installing large-format, opaque glass tiles" in the Related Documents section of the Tile & Stone Installation Systems page on MAPEI's Website.

- Follow the glass tile manufacturer's recommendations regarding limitations and appropriate use.

When mixed with water

- Do not use for installations subject to water immersion such as pools and spas.
- Not recommended for areas subject to severe freeze/thaw conditions. For the best performance, use a MAPEI liquid, latex additive mortar system.

When mixed with Keraply

- For submerged and prolonged water-immersion installations in pools and spas
- Consult building code requirements for use on exterior commercial facades.

SUITABLE SUBSTRATES

When mixed with water

- Concrete (cured for 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 (priming may be required). See the "Surface preparation requirements" reference guide in the Related Documents section of the Tile & Stone Installation Systems page on MAPEI's Website.

When mixed with Keraply

- The substrates listed above
- APA Group 1 and CANPLY 0121 exterior-grade plywood (interior, residential and light commercial floors and countertops 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

Consult MAPEI's Technical Services Department for installation recommendations regarding substrates and conditions not listed.

Note that glass tile may not be suitable over some of the above substrates, such as plywood. Consult the TCNA and glass tile manufacturer regarding installation recommendations over these substrates or membranes.

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 the "Surface preparation requirements" reference guide in the Related Documents section of the Tile & Stone Installation Systems page on MAPEI's Website.

MIXING

Before product use, take appropriate safety precautions. Refer to the Safety Data Sheet for details.

1. Mixing container should be clean, and water (if used) should be clean and potable.
- 2a. For 10 lbs. (4.54 kg) of Adesilex P10 Mosaic & Glass Tile: Pour about 1.5 to 1.7 U.S. qts. (1.42 to 1.61 L) of water or *Keraply*. Gradually add 10 lbs. (4.54 kg) of powder while slowly mixing.
- 2b. For 43 lbs. (19.5 kg) of Adesilex P10 Mosaic & Glass Tile: Pour about 1.8 U.S. gals. (6.81 L) of water or *Keraply*. Gradually add 43 lbs. (19.5 kg) of powder while slowly mixing.
3. Use a low-speed mixing drill (at about 300 rpm), with an angled cross-blade mixer or auger mixer. Mix thoroughly until mixture becomes a smooth, homogenous, lump-free paste. Avoid prolonged mixing.
4. Let the mixture stand ("slake") for 5 minutes.
5. Remix.
6. If mixture becomes heavy or stiff, remix without adding more liquid or powder.

PRODUCT APPLICATION

1. If installing glass tile, consult specifications by the manufacturer to verify the suitability of *Adesilex P10 Mosaic & Glass Tile* for specific installations and installation procedures.
2. Choose a notched trowel (see "Approximate Coverage" chart) with sufficient depth to achieve greater than 80% mortar contact to both the tile and substrate for all interior applications, and greater than 95% for exterior installations, commercial floors and wet applications. It may be necessary to back-butter tile/stone in order to meet 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 the 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 the 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 tiles 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 the surface of glass tiles.

EXPANSION AND CONTROL JOINTS

- Provide for expansion and control joints as specified per TCNA Method EJ171, or TTMAC Specification Guide 09 30 00, Detail 301MJ. Do not cover expansion joints with mortars.
- Glass tiles exhibit more dimensional change due to temperature fluctuations than do ceramic or porcelain tiles. Joint spacing recommendations in EJ171 (301MJ) give a range for interior and exterior applications. For glass-tile installations, add additional movement joints in order to reduce stresses.

CLEANUP

- Use water only to clean tools and tiles while the mortar is fresh.

PROTECTION

- Protect from traffic for 24 hours, but up to 48 hours when mixed with *Keraply*. Protect from heavy traffic for 7 days.
- All glass installations benefit from extended curing times before grouting or permitting foot traffic.
- Protect from frost and rain for 7 days.
- After being grouted, glass tiles require at least 21 days of curing time before submersion in water.

Adesilex® P10
**Mosaic &
Glass Tile**

ISO 13007 Classification when mixed with water

Classification Code	Classification Requirement
C2 (cementitious, improved adhesion)	≥ 145 psi (1 MPa) after standard aging, heat aging, water immersion and freeze/thaw cycles
T (vertical slip resistance)	≤ 0.019" (0.5 mm)
E (extended open time)	≥ 72.5 psi (0.5 MPa) after 20 to 30 minutes

ISO 13007 Classification when mixed with Keraply

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T (vertical slip resistance)	≤ 0.019" (0.5 mm)
E (extended open time)	≥ 72.5 psi (0.5 MPa) after 20 to 30 minutes
S1 (normal deformation of mortar)	≥ 0.1" (2.5 mm)
P1 (normal adhesion to plywood)	≥ 72.5 psi (0.5 MPa)

ANSI Specification when mixed with water

Test Method	Specification Standard	Test Results
ANSI A118.4E – extended open time	≥ 72.5 psi (0.5 MPa) at 30 minutes	Pass
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 A118.4T – sag on vertical surfaces	< 0.02" (0.5 mm) at 20 minutes	Pass

ANSI Specification when mixed with Keraply

Test Method	Specification Standard	Test Results
ANSI A118.4E – extended open time	≥ 72.5 psi (0.5 MPa) at 30 minutes	Pass
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 A118.4T – sag on vertical surfaces	< 0.02" (0.5 mm) at 20 minutes	Pass
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 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), bright white
Bag: 43 lbs. (19.5 kg), bright white

Approximate Coverage* 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 m ²)
1/4" x 1/4" x 1/4" (6 x 6 x 6 mm) 	16 to 20 sq. ft. (1.49 to 1.86 m ²)
1/4" x 3/8" x 1/4" (6 x 10 x 6 mm) 	11 to 14 sq. ft. (1.02 to 1.30 m ²)

Approximate Coverage* per 43 lbs. (19.5 kg)

Typical Trowel	Coverage
1/8" x 3/16" x 1/8" (3 x 4.5 x 3 mm) 	80 to 105 sq. ft. (7.43 to 9.75 m ²)
1/4" x 1/4" x 1/4" (6 x 6 x 6 mm) 	70 to 85 sq. ft. (6.50 to 7.90 m ²)
1/4" x 3/8" x 1/4" (6 x 10 x 6 mm) 	50 to 60 sq. ft. (4.65 to 5.57 m ²)

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

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RELATED DOCUMENTS

Reference guide: "Surface preparation requirements" for tile and stone installation systems*

Technical bulletin: "Tiling over gypsum"*

Technical bulletin: "Installing large-format, opaque glass tiles"*

* At www.mapei.com

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

For information on MAPEI's commitment to sustainability and transparency, as well as how MAPEI meets the health and well-being requirements of product certification programs, contact the MAPEI Sustainability Team at 1-800-992-6273.

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in effect at the time of the MAPEI product installation. For the most up-to-date TDS and warranty information, please visit our website at

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Before using, the user must determine the suitability of our products for the intended use,

and the user alone assumes all risks and liability. **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:



MAPEI Headquarters of North America

1144 East Newport Center Drive
Deerfield Beach, Florida 33442
1-888-US-MAPEI (1-888-876-2734) /
(954) 246-8888

Technical Services

1-800-992-6273 (U.S. and Puerto Rico)
1-800-361-9309 (Canada)

Customer Service

1-800-42-MAPEI (1-800-426-2734)

Services in Mexico

0-1-800-MX-MAPEI (0-1-800-696-2734)

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