# Adesilex P10 Mosaic & Glass Tile

Premium Mosaic and Glass Tile Mortar with Polymer





**S1** 

### DESCRIPTION

Adesilex<sup>™</sup> P10 Mosaic & Glass Tile is a premium-grade, bright white, multipurpose thin-set mortar formulated with nonsag 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

- Nonsag 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 A118.4ET bond strength requirements when mixed with water; exceeds ANSI A118.4ET 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 residential countertops; 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 "Tiling over gypsum" technical bulletin in the Tile & Stone Installation Systems section of 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 Tile & Stone Installation Systems section of 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 Tile & Stone Installation Systems section of MAPEI's Website.

#### When mixed with Keraply

- The substrates listed above
- Plywood underlayments must be a Group 1 exterior-grade plywood CC-plugged or better, conforming to APA classification and U.S. Product Standard PS 1-95 or a "SELECT" or (SEL-TF) CANPLY classified exterior-grade plywood conforming to CSA-0121 standard for Douglas fir for direct-bond applications (interior, residential and light commercial floors and countertops in dry conditions only).
- 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 Tile & Stone Installation section of 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.
- 2. <u>For 10 lbs. (4.54 kg) of Adesilex P10 Mosaic & Glass Tile</u>: Pour 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.

For 43 lbs. (19.5 kg) of Adesilex P10 Mosaic & Glass Tile: Pour 6.5 to 7.3 U.S. qts. (6.15 to 6.91 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

Read all installation instructions thoroughly before installation.

- 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 the "Approximate Coverage" chart below) 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 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 mortar.
- 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

• Clean tools and tile while the mortar is fresh, using only water.

### 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-tile 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.



#### ISO 13007 Classification

| Classification Code                  | Classification Requirement   |
|--------------------------------------|--|
| When mixed with water                |  |
| 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  |
| When mixed with Keraply              |  |
| 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  |
| SI (normal deformation of mortar)    | ≥ 0.1" (2.5 mm)  |
| P1 (normal adhesion to plywood)      | ≥ 72.5 psi (0.5 MPa)   |

### **ANSI Specifications**

| Test Method  | Specification Standard               | Test Results                      |
|--|--------------------------------------|-----------------------------------|
| When mixed with water  |                                      |                                   |
| ANSI A118.4E – extended open<br>time                                       | ≥72.5 psi (0.5 MPa) at 30<br>minutes | Pass                              |
| ANSI A118.4 – shear strength,<br>impervious ceramic (porcelain)<br>mosaics | > 200 psi (1.38 MPa) at 28 days      | 200 to 280 psi (1.38 to 1.93 MPa) |
| ANSI A118.4 – shear strength,<br>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,<br>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                              |
| When mixed with Keraply  |                                      |                                   |
| ANSI A118.4E – extended open time  | ≥72.5 psi (0.5 MPa) at 30<br>minutes | Pass                              |
| ANSI A118.4 – shear strength,<br>impervious ceramic (porcelain)<br>mosaics | > 200 psi (1.38 MPa) at 28 days      | 200 to 400 psi (1.38 to 2.76 MPa) |
| ANSI A118.4 – shear strength,<br>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,<br>quarry tile to quarry tile                | > 150 psi (1.03 MPa) at 28 days      | 420 to 640 psi (2.90 to 4.41 MPa) |



#### Adesilex P10 Mosaic & Glass Tile

| ANSI A118.4T – sag on vertical surfaces                  | < 0.02" (0.5 mm) at 20 minutes  | Pass                             |
|--|---------------------------------|----------------------------------|
| ANSI A118.11 – shear strength,<br>quarry tile to plywood | > 150 psi (1.03 MPa) at 28 days | 150 to 250 psi (1.03 to 172 MPa) |

#### Shelf Life and Product Characteristics

| Shelf life | l year when stored in original, unopened packag-ing<br>at 73°F (23°C) |
|------------|---|
| Colors     | Bright white  |

#### **Application Properties**

at 73°F (23°C) and 50% relative humidity

| Open time*           | 20 to 30 minutes |
|----------------------|------------------|
| Pot life*            | > 2 hours        |
| Time before grouting | 24 to 48 hours   |
| VOC content          | 0 g per L        |

\*Actual open time, pot life and time before grouting will vary based on jobsite conditions.

#### Packaging

| Size and Color                                   | Size and Colo   |
|--|-----------------|
| Bag: 10 lbs. (4.54 kg), bright white             | Bag: 10 lbs. (4 |
| Bag: 43 lbs. (19.5 kg), bright white (U.S. only) | Bag: 43 lbs. (1 |

#### 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), U-notched    | 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), square-notched  | 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), square-notched | 11 to 14 sq. ft. (1.02 to 1.30 m²) |



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), U-notched    | 80 to 105 sq. ft. (7.43 to 9.75 m²) |
| 1/4" x 1/4" x 1/4" (6 x 6 x 6 mm), square-notched  | 70 to 85 sq. ft. (6.50 to 7.90 m²)  |
| 1/4" x 3/8" x 1/4" (6 x 10 x 6 mm), square-notched | 50 to 60 sq. ft. (4.65 to 5.57 m²)  |

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

### **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

## ADDITIONAL INFORMATION

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 products may contribute to green building standards and certification systems, contact sustainability\_USA@mapei.com (USA) or sustainability-durabilite@mapei.com (Canada).

# WARNING

The test results shown in the TECHNICAL DATA table were obtained in compliance with test methods and curing cycles, if applicable, defined in the industry standards referenced on the Technical Data Sheet. Please note that the use of test procedures or methods other than those indicated in the table could lead to different values and that, in such cases, any liability of our company is excluded.



#### LEGAL NOTICE

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### **CONTACT INFORMATION**

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#### **Technical Services**

<u>U.S. and Puerto Rico:</u> Flooring: 1-800-992-6273 Concrete and heavy construction: 1-888-365-0614 <u>Canada:</u> 1-800-361-9309

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

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