

Keraply

Professional Latex Additive for Tile Mortar



DESCRIPTION

Keraply[®] is a professional-grade, acrylic latex admixture used to enhance the performance of MAPEI's non-modified, dry-set mortars as well as *Adesilex*[™] P10 Mosaic & Glass Tile mortar. As a highly recommended admixture, *Keraply* enhances bond strength, flexural strength, elongation and freeze/thaw durability.

FEATURES AND BENEFITS

- Improves the bond strength of mortar
- Enhances mortar performance and allows use with a wider range of tile and stone types over additional substrates
- Good for most difficult tiles and interior/exterior surfaces
- When a dry-set mortar is mixed with *Keraply* rather than with water, the mixture is ideal for setting tile in areas subject to severe climate swings (ranging from high to below-freezing temperatures, and from dry to wet conditions).

INDUSTRY STANDARDS AND APPROVALS

- ANSI: Exceeds ANSI A118.4 and ANSI A118.11 bond strength requirements
- ISO 13007: See the Technical Data Sheet (TDS) of the mortar that *Keraply* is mixed with.

WHERE TO USE

- Interior/exterior, residential/commercial wet and dry installations
- Installation of ceramic and porcelain tile, quarry tile, pavers, Saltillo tile, and most types of marble, granite, glass tile and natural stone

LIMITATIONS

- Install only 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 or resin-backed tiles. Instead, use suitable epoxy or urethane adhesives (see the respective TDS for details).
- For resin-backed tiles, contact MAPEI's Technical Services Department.
- For light-colored and translucent natural stone, as well as transparent and translucent glass, a white mortar is recommended.
- Do not use over dimensionally unstable substrates such as hardwood flooring, oriented strand board (OSB), substrates containing asbestos, or metal. See the respective TDS of the mortar used for more information.
- 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.
- Do not dilute with any other liquids.
- Cure for 28 days before water immersion.
- Installations over nonporous surfaces, such as waterproofing membranes and existing tile, may require extended setting/curing times.
- 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.

SUITABLE SUBSTRATES

- Concrete (cured for at least 28 days)
- Masonry cement block, brick, cement mortar beds, render coats and leveling coats
- Existing ceramic and porcelain tile, cement terrazzo, quarry tile and pavers (interior in dry conditions only)
- Vinyl composition tile (VCT), vinyl and cutback adhesive residue
- Cement backer units (CBU) – see manufacturer's installation guidelines (interior only) 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). 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.
- MAPEI's waterproofing, crack-isolation, sound-reduction, heat and uncoupling 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 Systems section of MAPEI’s Website.

MIXING

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

Option 1: A 2-gal. (7.57-kg) jug of Keraply mixed with 50 lbs. (22.7 kg) of dry-set mortar

- Into a clean mixing container, pour about 1.8 to 2 U.S. gals. (6.81 to 7.57 L) of Keraply for the desired consistency.
- While slowly mixing, gradually add 50 lbs. (22.7 kg) of a dry-set mortar.

Option 2: A 2-gal. (7.57-kg) jug of Keraply mixed with 43 lbs. (19.5 kg) of Adesilex P10 Mosaic & Glass Tile mortar

- Into a clean mixing container, pour about 1.6 to 1.8 U.S. gals. (6.06 to 6.81 L) of Keraply for the desired consistency.
- While slowly mixing, gradually add 43 lbs. (19.5 kg) of Adesilex P10 Mosaic & Glass Tile.

Option 3: A 54.4-oz. (1.61 L) jug of Keraply mixed with 10 lbs. (4.54 kg) of Adesilex P10 Mosaic & Glass Tile mortar

- Into a clean mixing container, pour about 1.5 to 1.7 U.S. qts. (1.42 to 1.61 L) of Keraply for the desired consistency.
- While slowly mixing, gradually add 10 lbs. (4.54 kg) of Adesilex P10 Mosaic & Glass Tile.

1. 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.
2. Let the mixture stand (“slake”) for 5 minutes.
3. Remix.
4. If the mixture becomes heavy or stiff, remix it without adding more liquid or powder.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. Choose a typical notched trowel (see the respective mortar’s TDS) with sufficient depth to achieve more 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 tiles in order to reach 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. For glass tile and mosaics, knock down the trowel ridges to ensure that they do not show through translucent tiles.
5. 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 percentage of contact.
6. 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)

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 EJ-171 (301-MJ) 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 to 48 hours, so that the mortar is sufficiently set. See the TDS of the mortar being used for additional instructions.

Product Performance Properties

See the TDS of the mortar being used.

Shelf Life and Product Characteristics

before mixing

Shelf life	2 years when stored in original, unopened packaging at 73°F (23°C) and 50% relative humidity
Physical state	Liquid latex
VOC content (SCAQMD Rule 1168)	< 65 g per L
Typical VOC content per SCAQMD Rule 1168 testing methods	1 g per L

Protect containers from freezing in transit and storage. Provide for heated storage on site and deliver all materials at least 24 hours before work begins.

Packaging

Size
Jug: 54.4 U.S. oz. (1.61 L)
Jug: 2 U.S. gals. (7.57 L)
Pail: 5 U.S. gals. (18.9 L)

Drum: 55 U.S. gals. (208 L)

Approximate Coverage

See the TDS of the mortar being used.

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

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement nor 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 www.mapei.com. **ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED MAPEI WARRANTIES.**

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.**

CONTACT INFORMATION

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

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