

Keraflor

Standard Tile Mortar



When mixed with water



When mixed with Keraply®



DESCRIPTION

Keraflor® is a dry-set mortar for use in interior/exterior residential and light commercial floor applications.

FEATURES AND BENEFITS

- For interior/exterior floors
- Can be used over plywood substrates when mixed with Keraply

INDUSTRY STANDARDS AND APPROVALS

- ISO 13007: Classification C1 when mixed with water; classification C2S1 when mixed with Keraply
- ANSI: Exceeds ANSI A118.1 bond strength requirements when mixed with water; exceeds ANSI A118.4 and ANSI A118.11 bond strength requirements when mixed with Keraply

WHERE TO USE

When mixed with water

- Most interior/exterior residential installations on floors
- Installation of ceramic tile, quarry tile, pavers and Saltillo tile

When mixed with Kerafly

- Most interior/exterior residential and light commercial floor installations
- Installation of ceramic and porcelain tile, quarry tile, pavers, Saltillo tile, and most types of marble, granite 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 granite), agglomerate tiles, or resin-backed tiles. Instead, use suitable epoxy or urethane adhesives. 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 below.
- For light-colored and translucent natural stone, a white mortar is recommended.
- 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 mortar system with a liquid latex additive.

SUITABLE SUBSTRATES

When mixed with water

- Concrete (cured for at least 28 days)
- Cement mortar beds and leveling coats

When mixed with Kerafly

- The substrates listed above
- Cement backer units (CBUs) – see manufacturer's installation guidelines
- 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).

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

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.

1. Into a clean mixing container, pour about 5 to 6 U.S. qts. (4.73 to 5.68 L) of clean potable water, or 1.5 to 2 U.S. gals. (5.68 to 7.57 L) of *Keraply*.
2. Gradually add 50 lbs. (22.7 kg) of powder while slowly mixing.
3. Use a low-speed mixing drill (at about 300 rpm), with an angled cross-blade mixer or spiral mixer. Mix thoroughly until the mixture becomes a smooth, homogenous, lump-free paste. Avoid prolonged mixing.
4. Let the mixture stand ("slake") for 5 minutes.
5. Remix for 1 minute.
6. If the mixture becomes heavy or stiff, remix it without adding more liquid.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. Choose a notched trowel (see the "Approximate Coverage" chart below) 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 and wet applications. It may be necessary to back-butter the tile/stone 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 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 help achieve maximum coverage. Ensure proper contact between the mortar, tile and substrate by periodically lifting a few tiles to check for acceptable coverage.
6. Remove excess mortar from the joint areas so that at least $\frac{2}{3}$ 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 any expansion joints with mortar.

CLEANUP

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

PROTECTION

- Protect from traffic for 24 hours. Protect from heavy traffic for 7 days.
- Protect from frost and rain for 7 days.

Product Performance Properties

| Classification Code | Classification Requirement |
|--------------------------------------|---|
| When mixed with water | |
| C1 (cementitious, normal adhesion) | ≥ 72.5 psi (0.5 MPa) after standard aging, heat aging, water immersion and freeze/thaw cycles |
| When mixed with Kerafly | |
| C2 (cementitious, improved adhesive) | ≥ 145 psi (1 MPa) after standard aging, heat aging, water immersion and freeze/thaw cycles |
| S1 (normal deformation of mortar) | ≥ 0.1" (2.5 mm) |

ANSI Specifications

| Test Method | Specification Standard | Test Results |
|--|---------------------------------|-----------------------------------|
| When mixed with water | | |
| ANSI A118.1– shear strength, impervious ceramic (porcelain) mosaics | > 150 psi (1.03 MPa) at 28 days | 160 to 190 psi (1.10 to 1.31 MPa) |
| ANSI A118.1 – shear strength, glazed wall tile | > 250 psi (1.72 MPa) at 28 days | 250 to 270 psi (1.72 to 1.86 MPa) |
| ANSI A118.1 – shear strength, quarry tile to quarry tile | > 100 psi (0.69 MPa) at 28 days | 170 to 220 psi (1.17 to 1.52 MPa) |
| When mixed with Kerafly | | |
| 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 | 300 to 550 psi (2.07 to 3.79 MPa) |
| ANSI A118.4 – shear strength, quarry tile to quarry tile | > 150 psi (1.03 MPa) at 28 days | 250 to 380 psi (1.72 to 2.62 MPa) |
| ANSI A118.11– shear strength, quarry tile to plywood | > 150 psi (1.03 MPa) at 28 days | 150 to 300 psi (1.03 to 2.07 MPa) |

Shelf Life and Product Characteristics

before mixing

| | |
|----------------|---|
| | |
| Shelf life | 1 year when stored in original, unopened packaging at 73°F (23°C) |
| Physical state | Powder |
| Colors | White and gray |

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.

Application Properties*

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

| Open time* | 15 to 20 minutes |
|-----------------------|------------------|
| Pot life* | > 2 hours |
| Time before grouting* | 24 hours |
| VOC content | 0 g per L |

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

Packaging

| Size and Color |
|-------------------------------|
| Bag: 50 lbs. (22.7 kg), gray |
| Bag: 50 lbs. (22.7 kg), white |

Approximate Coverage**

per 50 lbs. (22.7 kg)

| Typical Trowel | Coverage |
|--|--|
| 1/4" x 1/4" x 1/4" (6 x 6 x 6 mm), square-notched | 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), square-notched | 55 to 65 sq. ft. (5.11 to 6.04 m ²) |

** 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***

*** 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.**

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For the most current product data and BEST-BACKEDSM warranty information,
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