



# Kerabond/ Keralastic<sup>TM</sup> System

## Premium, Flexible Tile Mortar



### DESCRIPTION

*Kerabond/Keralastic System* is a high-performance, two-part system: *Keralastic*<sup>TM</sup>, a second-generation “flexible” acrylic latex additive, is used to enhance the performance of *Kerabond*<sup>TM</sup>, which is a premium-grade dry-set mortar. This system has exceptional bond strength, flexural strength, elongation and freeze/thaw durability. To ensure proper flexibility, always use a latex additive when applying a dry-set mortar over plywood or to set nonvitreous tiles.

### FEATURES AND BENEFITS

- High-performance bond
- Best for most difficult tiles, substrates and conditions

### INDUSTRY STANDARDS AND APPROVALS

ISO 13007: Classification C2ES2P2

ANSI: Meets or exceeds ANSI A118.4E, ANSI A118.11 and ANSI A118.15E bond strength requirements

#### LEED Points Contribution

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MR Credit 5, Regional Materials\* ..... Up to 2 points

IEQ Credit 4.1, Low-Emitting Materials – Adhesives & Sealants ..... 1 point

IEQ Credit 4.3, Low-Emitting Materials – Flooring Systems.....1 point

\* Using this product may help contribute to LEED certification of projects in the categories shown above. Points are awarded based on contributions of all project materials.

### WHERE TO USE

- Most interior/exterior residential and commercial installations on floors, walls and ceilings
- Installation of ceramic and porcelain tile, glass 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 Sheets for more information.)
- Some glass tile backings may not be suitable for use with *Kerabond/Keralastic*. Consult the recommendations of the TCNA and the glass tile manufacturer.
- For translucent or transparent glass tile, use white *Granirapid*<sup>®</sup> or *Adesilex*<sup>™</sup> P10.
- Use a white mortar when installing light-colored stones and translucent marble.
- 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.
- To use directly over gypsum-based patching or leveling substrates, apply a suitable sealer before use. See MAPEI’s Technical Bulletin 010313-TB, “Gypsum-Based Floors and Walls: Which MAPEI Products Can Be Applied?”



- Consult local building code requirements for use on exterior commercial facades.
- Installations of tile over nonporous surfaces, such as waterproofing membranes and existing tile, may require extended setting/curing times.

## SUITABLE SUBSTRATES

- 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 primed plaster – interior walls in dry areas only (see MAPEI's Technical Bulletin 010313-TB for priming instructions)
- APA and CANPLY Group 1 exterior-grade plywood (interior, residential and light commercial floors and countertops in dry conditions only)
- Properly prepared vinyl composition tile (VCT), plastic laminate countertops, non-cushioned sheet vinyl and cutback residue (interior installations)
- 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.

## 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's "Surface Preparation Requirements" document in the Product Information section of the Tile & Stone Installation Systems page on MAPEI's Website.

## MIXING

Note: Before starting, take appropriate safety precautions. See the Safety Data Sheet for details.

1. Into a clean mixing container, pour about 2 U.S. gals. (7,57 L) of *Keralastic*.
2. Gradually add 50 lbs. (22,7 kg) of *Kerabond* powder while slowly mixing.
3. Use a low-speed mixing drill (at about 300 rpm), with an angled cross-blade mixer or double-box mixer. Mix thoroughly until the mixture becomes a smooth, homogenous, lump-free paste. Avoid prolonged mixing.
4. Let the mixture stand ("slake") for 10 minutes.

5. Remix.
6. If the mixture becomes heavy or stiff, remix without adding more liquid or powder.

## PRODUCT APPLICATION

1. Choose a typical 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 floor and wet applications. It may be necessary to back-butter tiles 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, using the trowel's notched side to comb the mortar in a single direction parallel to the tile's shortest dimension.
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 to 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 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 Detail EJ171 or TTMAC Specification Guide 09 30 00, Detail 301MJ. Do not cover expansion joints with mortars.

## CLEANUP

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

## PROTECTION

- Protect from traffic for 24 hours. Protect from heavy traffic for 7 days.
- Protect from frost and rain for 21 days.
- Protect from water immersion for 21 days.

## ISO 13007 Classification

Classification Code	Classification Requirement
C2 (cementitious, improved adhesion)	≥ 145 psi (1 MPa) after standard aging, heat aging, water immersion and freeze/thaw cycles
E (extended open time)	≥ 72.5 psi (0,5 MPa) after 20 to 30 minutes
S2 (improved deformation of mortar)	≥ 0.2" (5 mm)
P2 (improved adhesion to plywood)	≥ 145 psi (1 MPa)

## ANSI Specification\*

Test Method	Specification Standard	Test Results
ANSI A118.11 – shear strength, quarry tile to plywood	> 150 psi (1,03 MPa) at 28 days	250 to 360 psi (1,72 to 2,48 MPa)
ANSI A118.15E – (extended open time)	> 75 psi (0,52 MPa) at 30 minutes	Pass
ANSI A118.15 – shear strength, impervious ceramic (porcelain) mosaics	> 400 psi (2,76 MPa) at 28 days	400 to 500 psi (2,76 to 3,45 MPa)
ANSI A118.15 – shear strength, glazed wall tile	> 450 psi (3,10 MPa) at 7 days	660 to 880 psi (4,55 to 6,07 MPa)
ANSI A118.15 – shear strength, quarry tile to quarry tile	> 150 psi (1,03 MPa) at 28 days	550 to 850 psi (3,79 to 5,86 MPa)

\* Anything that meets A118.15 by definition meets or exceeds A118.4.

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



Shelf life	1 year ( <i>Kerabond</i> ); 2 years ( <i>Keralastic</i> )
Open time**	20 to 30 minutes
Pot life**	> 2 hours
Time before grouting**	24 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, powder: 50 lbs. (22,7 kg), gray
Bag, powder: 50 lbs. (22,7 kg), white
Jug, liquid: 2 U.S. gals. (7,57 L)
Pail, liquid: 5 U.S. gals. (18,9 L)
Drum, liquid: 55 U.S. gals. (208 L)

## Approximate Coverage\*\*\* per 50 lbs. (22,7 kg)

Typical Trowel	Coverage for 50 lbs. (22,7 kg)
1/4" x 1/4" x 1/4" (6 x 6 x 6 mm) 	75 to 90 sq. ft. (6,97 to 8,36 m <sup>2</sup> )
1/4" x 3/8" x 1/4" (6 x 10 x 6 mm) 	55 to 65 sq. ft. (5,11 to 6,04 m <sup>2</sup> )

\*\*\* 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 & Stone Installation Systems	RGT0309*
Technical Bulletin: "Gypsum-Based Floors and Walls: Which MAPEI Products Can Be Applied?"	010313-TB*

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

### 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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We proudly support the following industry organizations:



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