



Ker® 111

Standard Tile Mortar with Polymer



DESCRIPTION

Ker 111 is a single-component, thin-set mortar for interior and exterior installations of stone, ceramic, porcelain and quarry tile. This mortar is formulated with a unique dry polymer, resulting in good adhesion to the substrate and tile.

FEATURES AND BENEFITS

- Economical polymer-modified mortar that only requires the addition of water

INDUSTRY STANDARDS AND APPROVALS

ISO 13007: Classification C2

ANSI: Exceeds ANSI A118.4 bond strength requirements

LEED Points Contribution

LEED Points

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 MAPEI 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 installations on floors and walls
- Most interior/exterior commercial installations on floors
- Most interior commercial installations on walls

LIMITATIONS

- Install only 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, cultured marble or resin-backed tiles. Instead, use suitable epoxy or urethane adhesives. See the respective Technical Data Sheet (TDS) for more information.
- Do not use over dimensionally unstable substrates such as hardwood flooring, oriented strand board (OSB), substrates containing asbestos, or metal. See "Suitable Substrates" section below.
- To use directly over gypsum-based patching or leveling substrates, apply suitable sealer before use. See MAPEI Technical Bulletin 010506-TB, "Installing MAPEI Products over Gypsum."
- Use a white mortar when installing light-colored stones and translucent marble.
- Do not use for installations subject to prolonged water immersion.
- *Ker 111* is not recommended for areas subject to severe freeze/thaw conditions. Instead, use a liquid latex additive mortar system.

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 – interior walls in dry areas only (see Technical Bulletin 010506-TB, "Installing MAPEI Products over Gypsum," for priming instructions)

SUBSTRATE 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 for tile and stone installation systems.

MIXING

Before starting, take appropriate safety precautions. See the Material Safety Data Sheet (MSDS) for details.

1. Into a clean mixing container, pour about 5 to 5.5 U.S. qts. (4,73 to 5,20 L) of clean potable water.
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 double box mixer. Mix thoroughly until mixture becomes a smooth, homogenous, lump-free paste. Avoid prolonged mixing.
4. Let mixture stand ("slake") for 10 minutes.
5. Remix.
6. If mixture becomes heavy or stiff, remix without adding more liquid or powder.

PRODUCT APPLICATION

1. Choose a notched trowel (see chart) with sufficient depth to achieve > 80% mortar contact to both the tile and substrate for all interior applications, and > 95% for exterior installations, commercial floor and wet applications. It may be necessary to back-butter in order to reach these requirements. (Refer to ANSI A108.5 specifications and TCA Handbook guidelines.)
2. With pressure, apply a coat by using the trowel's flat side to key mortar into 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 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 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 mortar is fresh.

PROTECTION

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

Product Performance Properties

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

ANSI Specification

Test Method	ANSI Specification
ANSI A118.4 – shear strength, impervious ceramic (porcelain) mosaics	> 200 psi (1,38 MPa) at 28 days
ANSI A118.4 – shear strength, glazed wall tile	> 300 psi (2,07 MPa) at 28 days
ANSI A118.4 – shear strength, quarry tile to quarry tile	> 150 psi (1,03 MPa) at 28 days

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 hours
VOCs (Rule #1168 of California's SCAQMD)	0 g/L

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

Packaging

Product Code	Size and Color
U.S. 0060046	50 lbs. (22,7 kg), gray
U.S. 0060045	50 lbs. (22,7 kg), white

Approximate Product Coverages* per 50 lbs. (22,7 kg)

Typical Trowel	Coverage
1/4" x 1/4" x 1/4" (6 x 6 x 6 mm) 	75 to 90 sq. ft. (6,97 to 8,36 m²)
1/4" x 3/8" x 1/4" (6 x 10 x 6 mm) 	55 to 65 sq. ft. (5,11 to 6,04 m²)

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

Ker® 111



RELATED DOCUMENTS

Reference Guide: Surface Preparation Requirements for tile and stone installation systems	RG0309*
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* At www.mapei.com.

Refer to MAPEI's Material Safety Data Sheet (MSDS) for specific data related to VOCs, health and safety, and handling of product.

STATEMENT OF RESPONSIBILITY

Before using, user shall determine the suitability of the product for its intended use and user alone assumes all risks and liability whatsoever in connection therewith. **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:



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

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