



# Ultraflor™

## Medium-Bed Mortar



### DESCRIPTION

*Ultraflor* is a medium-bed, polymer-modified mortar for interior and exterior setting of large-format tile, including heavy-ribbed-back tile, brick pavers, dimensional tile and natural-stone tile. *Ultraflor* is designed for use at 3/8" to 3/4" (10 to 19 mm) thickness to give better support under large-format tile.

### FEATURES AND BENEFITS

- For floor installations 3/8" to 3/4" (10 to 19 mm) thick
- For large-format tile and stone

### INDUSTRY STANDARDS AND APPROVALS

**ISO 13007:** Classification C2

**ANSI:** When mixed with water, exceeds ANSI A118.4 bond strength requirements; when mixed with *Keraply*™, ANSI A118.11 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 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
- 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 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 "Suitable Substrates" section below.
- To use directly over gypsum-based patching or leveling substrates, apply suitable sealer before use. See MAPEI's Technical Bulletin 010506-TB, "Installing MAPEI Products over Gypsum."
- Medium-bed mortars are not designed to correct uneven floors. Substrates must be flat and level before the installation of large-format tile.
- Do not use for installations subject to prolonged water immersion.
- *Ultraflor* 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

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 for tile and stone installation systems at [www.mapei.com](http://www.mapei.com).

## MIXING

Note: Choose all appropriate safety equipment before use. See Material Safety Data Sheet (MSDS) 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.
2. Gradually add 50 lbs. (22,7 kg) of powder while slowly mixing.
3. Use a low-speed mixing drill (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 typical notched trowel (see chart below) 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 tiles 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.

## CLEANING

- 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*	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
0030051	Bag: 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)
1/2" x 1/2" x 1/2" (12 x 12 x 12 mm) 	38 to 45 sq. ft. (3,53 to 4,18 m²)
3/4" x 9/16" x 3/8" (19 x 14 x 10 mm) 	25 to 30 sq. ft. (2,32 to 2,79 m²)

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

# Ultraflor™



## RELATED DOCUMENTS

Reference Guide: Surface Preparation Requirements for tile and stone installation systems	RGT0309*
Technical Bulletin: Installing MAPEI Products over Gypsum	010506-TB*

\* At [www.mapei.com](http://www.mapei.com).

Refer to MAPEI's 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](http://www.mapei.com).

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