



# Ultracontact™

## Premium, Full-Contact Tile Mortar with Polymer



### DESCRIPTION

*Ultracontact* is a premium, polymer-modified, high-performance, full-contact mortar. Its superior wet-out characteristics achieve outstanding transfer to the back of the tile and eliminate the need for back-buttering. *Ultracontact* is more fluid than traditional mortars, yet holds its ridges regardless of trowel size. It can be used in thin-set and medium-bed applications with all types of tile sizes.

### FEATURES AND BENEFITS

- Complete transfer of mortar to tile
- Excellent for large tile and stone
- Interior/exterior use on floors for most applications

### INDUSTRY STANDARDS AND APPROVALS

- ISO 13007: Classification C2EP1
- ANSI: Exceeds ANSI A118.4E and ANSI A118.11 bond strength requirements

### 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

- Do not install over substrates containing asbestos.
- 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, cultured marble or resin-backed tiles. Instead,

use a suitable epoxy or urethane adhesive. 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.
- 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.
- For light-colored and translucent natural stone, a white mortar is recommended.
- Installations of tile over nonporous surfaces such as waterproofing membranes and existing tile may require extended setting/curing times.
- Do not use for installations subject to water immersion, such as pools and spas.
- *Ultracontact* is not recommended for areas subject to severe freeze/thaw conditions. For best performance, use a MAPEI liquid latex additive mortar system.
- Full-contact mortars are not designed to correct uneven floors. Substrates should be flat and level before the installation of large-format tile.

### SUITABLE SUBSTRATES

- Concrete (cured for at least 28 days)
- Masonry cement block, brick, cement mortar beds and leveling coats
- Cement backer units (CBUs) – see manufacturer's installation guidelines
- Plywood underlayment must be 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)

- Vinyl composition tile (VCT) and cutback residue (interior only)
- Existing ceramic and porcelain tile, cement terrazzo, quarry tile and pavers (interior and dry conditions only)
- MAPEI waterproofing, crack-isolation, sound-reduction and uncoupling membranes (limited to thin-set installations only when using weak stone)

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**

Note: *Ultracontact* handles differently than other mortars. When mixed to the correct water ratio, it will be runnier than traditional mortars. However, it will hold its ridges and support the tile. For the first bag, mix the full bag to the exact ratio to become accustomed to the exact factory specifications. Despite being fluid, *Ultracontact* actually uses less water than traditional mortars.

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

1. Into a clean mixing container, pour about 5 U.S. qts. (4.73 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 the mixture becomes a smooth, homogenous, lump-free paste. Avoid prolonged mixing.
4. Let the mixture stand ("slake") for 5 minutes.
5. Remix.
6. If the mixture becomes heavy or stiff, remix without adding more liquid.

## **PRODUCT APPLICATION**

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, 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 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 parallel to the tile's shortest dimension 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 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 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 093000 Detail 301MJ. Do not cover any expansion joints with mortar.

## **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 7 days.

## ISO 13007 Classification

Classification Code	Classification Requirement
C2 (cementitious, improved adhesive)	≥ 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
P1 (normal adhesion to plywood)	≥ 72.5 psi (0.5 MPa)

## ANSI Specifications

Test Method	Specification Standard	Test Results
ANSI A118.4 – shear strength, impervious ceramic (porcelain) mosaics	> 200 psi (1.38 MPa) at 28 days	285 to 430 psi (1.97 to 2.97 MPa)
ANSI A118.4 – shear strength, glazed wall tile	> 300 psi (2.07 MPa) at 28 days	570 to 740 psi (3.93 to 5.10 MPa)
ANSI A118.4 – shear strength, quarry tile to quarry tile	> 150 psi (1.03 MPa) at 28 days	285 to 500 psi (1.97 to 3.45 MPa)
ANSI A118.4E – extended open time	≥ 72.5 psi (0.5 MPa) at 30 minutes	Pass
ANSI A118.11 – shear strength, quarry tile to plywood	> 150 psi (1.03 MPa) at 28 days	215 to 300 psi (1.48 to 2.07 MPa)

## 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 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 (U.S. and Canada)
Bag: 50 lbs. (22.7 kg), white (U.S.)

## 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) 	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> )
1/2" x 1/2" x 1/2" (12 x 12 x 12 mm) 	38 to 45 sq. ft. (3.53 to 4.18 m <sup>2</sup> )
3/4" x 9/16" x 3/8" (19 x 14 x 10 mm) 	25 to 30 sq. ft. (2.32 to 2.79 m <sup>2</sup> )

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

# Ultracontact



## RELATED DOCUMENTS

Reference guide: "Surface preparation requirements" for tile and stone installation systems\*

Technical bulletin: "Tiling over gypsum"\*

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

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

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