



# Ultraflex<sup>TM</sup> LFT<sup>TM</sup> Rapid

**Premium, Rapid-Setting,  
Large-and-Heavy-Tile Mortar  
with Polymer**



## DESCRIPTION

*Ultraflex LFT Rapid* is a premium, rapid-setting, nonsag, large-and-heavy-tile mortar (formerly known as “medium-bed mortar”) and thin-set mortar for large-format tile and stone for interior/exterior floor, wall and countertop installations. This mortar has a high content of unique dry polymer, resulting in excellent adhesion to the substrate and tile. *Ultraflex LFT Rapid* is FastTrack Ready<sup>TM</sup>, allowing grouting in 3 to 4 hours.

## FEATURES AND BENEFITS

- Polymer-enriched for high performance and deformability
- Nonsag formula for large and heavy tile and stone in wall applications
- Nonslump for large and heavy tile and stone in floor applications
- For thicker bond coats from 3/32” to 1/2” (2,5 to 12 mm)
- Smooth and creamy consistency makes it easy to apply.
- Allows grouting in 3 to 4 hours

## INDUSTRY STANDARDS AND APPROVALS

- ISO 13007: Classification C2TFS1P1
- ANSI: Meets or exceeds ANSI A118.4TF and ANSI A118.11 bond strength requirements

### LEED v4 Points Contribution

### LEED Points

Environmental Product Declaration (EPD):

Tile Council of North America (TCNA)

Industry Average EPD for Mortars\* ..... 1/2 point

Health Product Declaration (HPD)\* ..... Up to 2 points

\* 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

- Interior/exterior residential and commercial installations on floors and walls in dry and wet areas (see wall specifications under “Limitations”)
- Installation of ceramic and porcelain tile; engineered stone; 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, cultured marble 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.
- To use directly over gypsum-based patching or leveling substrates, apply a suitable primer/sealer before use. See MAPEI’s Technical Bulletin 010313-TB, “Gypsum-Based Floors and Walls: Which MAPEI Products Can Be Applied?”
- For light-colored and translucent natural stone, a white mortar is recommended.



- Consult building code requirements regarding use on exterior commercial building facades.
- Dimensionally weak stone (limestone, travertine) is limited to thin-set applications only.

## 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
- Gypsum wallboard and plaster – interior walls in dry areas only (priming may be required). See MAPEI's Reference Guide RGT0309, Surface Preparation Requirements for tile and stone installation systems.
- APA Group 1 and CANPLY 0121 exterior-grade plywood (interior, residential and light commercial floors and countertops in dry conditions only)
- Properly prepared vinyl composition tile (VCT), vinyl and cutback residue (interior installations only)
- Properly prepared existing ceramic and porcelain tile, quarry tile and pavers (interior installations and dry conditions only)
- MAPEI waterproofing, crack-isolation and sound-control membranes

## 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 Reference & Installation Guides section of the Tile & Stone Installation Systems page on MAPEI's Website.

## MIXING

Choose all appropriate safety equipment before use. Refer to the Safety Data Sheet for details.

1. Into a clean mixing container, pour about 5.5 to 6.75 U.S. qts. (5,20 to 6,39 L) of clean potable water. Mix to the desired consistency: Use a thicker consistency with a lower water ratio for nonslip wall applications, and use a thinner consistency with a higher water ratio for floor applications.
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. Do not slake. Spread immediately.
5. If the mixture becomes heavy or stiff, remix without adding more liquid or powder.

## PRODUCT APPLICATION

1. Choose a notched trowel (see "Approximate Coverage" chart) with sufficient depth to achieve greater than 85% 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 in order to reach these requirements. (Refer to ANSI A108.5 specifications and TCNA 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 while still tacky. 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 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

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

## PROTECTION

- Do not disturb the installation, allow light traffic or grout tiles for at least 3 to 4 hours.
- Protect the installation from general traffic for at least 6 hours, and from heavy traffic for 24 hours.
- Protect the installation from rain for 36 hours, and from freezing for 5 days.
- Large-format tile and low-absorption tile may require a longer time to fully set before tiles are grouted.

Note: When working in cold temperatures, protect tilework for an extended time for this dry-set mortar to cure before grouting and/or allowing traffic.

### 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
T (vertical slip resistance)	≤ 0.019" (0,5 mm)
F (fast-setting)	≥ 72.5 psi (0,5 MPa) at 6 hours
S1 (normal deformation of mortar)	≥ 0.1" (2,5 mm)
P1 (normal adhesion to plywood)	≥ 72.5 psi (0,5 MPa)

### ANSI Specification

Test Method	ANSI Specification	Typical Test Results
ANSI A118.4 – shear strength, impervious ceramic (porcelain) mosaics	> 200 psi (1,38 MPa) at 28 days	410 to 625 psi (2,83 to 4,31 MPa)
ANSI A118.4 – shear strength, glazed wall tile	> 300 psi (2,07 MPa) at 7 days	425 to 700 psi (2,93 to 4,83 MPa)
ANSI A118.4 – shear strength, quarry tile to quarry tile	> 150 psi (1,03 MPa) at 28 days	500 to 725 psi (3,45 to 5 MPa)
ANSI A118.4T – sag on vertical surfaces	< 0.02" (0,5 mm)	Pass
ANSI A118.4F – shear strength, impervious ceramic (porcelain) mosaics	> 50 psi (0,34 MPa) at 4 hours	Pass
ANSI A118.11 – shear strength, quarry tile to plywood	> 150 psi (1,03 MPa) at 28 days	170 to 300 psi (1,17 to 2,07 MPa)

### 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 3,79 m <sup>2</sup> )

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

# Ultraflex™ LFT™ Rapid



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

Shelf life	6 months when stored in original, unopened packaging
Open time*	10 to 20 minutes
Pot life*	30 minutes
Time before grouting*	3 to 4 hours
VOCs (Rule #1168 of California's SCAQMD)	0 g per L

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

## Packaging

Size and Color
Bag: 50 lbs. (22,7 kg), gray
Bag: 50 lbs. (22,7 kg), white

## RELATED DOCUMENTS

Reference Guide: Surface Preparation Requirements for tile and stone installation systems	RGTO309**
Technical Bulletin: "Gypsum-Based Floors and Walls: Which MAPEI Products Can Be Applied?"	010313-TB**

\*\* 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.

## 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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