

MAPEI Ultralite Mortar Pro

Professional, Lightweight Mortar with Polymer for Large and Heavy Tile



DESCRIPTION

MAPEI Ultralite® Mortar Pro is a professional-grade, lightweight, single-component thin-set mortar that can also be used for large-and-heavy-tile and nonsag applications. This polymer-modified mortar is formulated with Easy Glide Technology™ for ease of application. MAPEI Ultralite Mortar Pro's unique Ultralite Technology™ provides twice the coverage of a standard thin-set mortar per pound/kg and contains more than 20% recycled content.

FEATURES AND BENEFITS

- Polymer-enriched for enhanced bond performance
- Nonsag and nonslump formula for large and heavy tile/stone
- A 25-lb. (11.3-kg) bag of MAPEI Ultralite Mortar Pro provides the same coverage as a 50-lb. (22.7-kg) bag of a standard polymer-modified mortar.
- Smooth and creamy consistency
- For thicker bond coats from 3/32" to 1/2" (2.5 to 12 mm)

INDUSTRY STANDARDS AND APPROVALS

- ISO 13007: Classification C1TES1
- ANSI: Exceeds ANSI A118.4HET and ANSI A118.11 requirements
- SCS Green Squared Certified per ANSI A138.1

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
- Installation of ceramic and porcelain tile, quarry tile, pavers, Saltillo tile, large-format 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 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 technical bulletin "Tiling over gypsum" in the Tile & Stone Installation Systems section of MAPEI's Website.
- 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.
- *MAPEI Ultralite Mortar Pro* is not recommended for areas subject to severe freeze/thaw conditions. For best performance, use a MAPEI mortar system with a liquid latex additive.
- For light-colored and translucent natural stone, a white mortar is recommended.

SUITABLE SUBSTRATES

- Concrete (cured at least 28 days)
- Masonry cement block, brick, cement mortar beds and leveling coats
- Cement backer units (CBUs) – see the manufacturer's installation guidelines
- Gypsum wallboard and plaster – interior walls in dry areas only (priming may be required). See the "Surface preparation requirements" reference guide in the Tile & Stone Installation Systems section of MAPEI's Website.
- Plywood underlayments must be a 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 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.
- Large-and-heavy-tile mortars are not designed to correct uneven floors. Substrates must be flat and level (according to the substrate flatness requirements in ANSI A108.02) before the installation of large-format tile.

See the "Surface preparation requirements" reference guide in the Tile & Stone Installation Systems section of MAPEI's Website.

MIXING

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

For thin-set applications:

1. a. Into a clean mixing container, pour about 5.5 U.S. qts. (5.20 L) of clean potable water. Gradually add 25 lbs. (11.3 kg) of powder while slowly mixing for at least 1 minute. Adjust the consistency with water, adding up to 1 additional U.S. qt. (0.95 L) as needed. Do not overwater. Mix again for 2 minutes.

For large-and-heavy-tile and nonsag applications for walls and floors:

1. b. Into a clean mixing container, pour about 5 U.S. qts. (4.73 L) of clean potable water. Gradually add 25 lbs. (11.3 kg) of powder while slowly mixing for at least 1 minute. Adjust the consistency with water, adding up to 1 additional U.S. qt. (0.95 L) as needed. Do not overwater. Mix again for 2 minutes.
2. Use a low-speed mixing drill (at about 300 rpm), with an angled cross-blade mixer or spiral mixer. Mix thoroughly until the mixture becomes a smooth, homogenous, lump-free paste. Avoid prolonged mixing.
3. Let the mixture stand ("slake") for 5 minutes.
4. Remix for 1 minute.
5. If the mixture becomes thick or stiff, remix it without adding more liquid.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. Choose a typical 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 and wet applications. It may be necessary to back-butter the tile 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, 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 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 any 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 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 24 to 48 hours.
- Protect the installation from general traffic for at least 72 hours, and from heavy traffic for at least 7 days.
- Protect the installation from rain for 72 hours, and from freezing for 21 days.

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 Classifications

Classification Code	Classification Requirement
C1 (cementitious, standard adhesive)	≥ 72.5 psi (0.5 MPa) after standard aging, heat aging, water immersion and freeze/thaw cycles
T (slip resistance	≤ 0.019" (0.5 mm)
E (extended open time)	≥ 72.5 psi (0.5 MPa) after 30 minutes
S1 (normal deformation of mortar)	≥ 0.1" (2.5 mm)

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	240 to 310 psi (1.66 to 2.14 MPa)

ANSI A118.4 – shear strength, glazed wall tile	>300 psi (2.07 MPa) at 7 days	300 to 420 psi (2.07 to 2.90 MPa)
ANSI A118.4 – shear strength, quarry tile to quarry tile	>150 psi (1.03 MPa) at 28 days	300 to 370 psi (2.07 to 2.55 MPa)
ANSI A118.4H – mortar for large and heavy tile	ASTM C627 Robinson Floor Test, lippage change < 1/64" (0.4 mm)	Pass
ANSI A118.4E – extended open time	≥ 75 psi (0.52 MPa) at 30 minutes	Pass
ANSI A118.4T – sag on vertical surfaces	≤ 0.02" (0.5 mm) at 20 minutes	Pass
ANSI A118.11 – shear strength, quarry tile to plywood	>150 psi (1.03 MPa) at 28 days	150 to 200 psi (1.03 to 1.38 MPa)

Shelf Life and Application Properties*

at 73°F (23°C) and 50% relative humidity

Shelf life	1 year in original unopened packaging
Open time*	30 minutes
Pot life*	> 2 hours
Time before grouting*	24 hours
VOC content	0 g per L

* Actual open time, pot life and time before grouting will vary based on jobsite conditions.

Approximate Coverage**

Typical Trowel	Coverage
Thin-set applications	
1/4" x 1/4" x 1/4" (6 x 6 x 6 mm), square-notch	75 to 90 sq. ft. (6.97 to 8.36 m ²)
1/4" x 3/8" x 1/4" (6 x 10 x 6 mm), square-notch	55 to 65 sq. ft. (5.11 to 6.04 m ²)
Large-and-heavy-tile and nonsag applications for walls and floors	
1/4" x 1/4" x 1/4" (6 x 6 x 6 mm), square-notch	75 to 90 sq. ft. (6.97 to 8.36 m ²)
1/4" x 3/8" x 1/4" (6 x 10 x 6 mm), square-notch	55 to 65 sq. ft. (5.11 to 6.04 m ²)
1/2" x 1/2" x 1/2" (12 x 12 x 12 mm), square-notch	38 to 45 sq. ft. (3.53 to 4.18 m ²)
3/4" x 9/16" x 3/8" (19 x 14 x 10 mm), U-notch	25 to 30 sq. ft. (2.32 to 2.79 m ²)

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

Packaging

Size and Color
Bag: 25 lbs. (11.3 kg), gray
Bag: 25 lbs. (11.3 kg), white

RELATED DOCUMENTS

- Reference guide: "Surface preparation requirements" for tile and stone installation systems***
- Technical bulletin: "Tiling over gypsum"***

*** At www.mapei.com

ADDITIONAL INFORMATION

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

For information on MAPEI's commitment to sustainability and transparency, as well as how MAPEI products may contribute to green building standards and certification systems, contact sustainability_USA@mapei.com (USA) or sustainability-durabilite@mapei.com (Canada).

WARNING

The test results shown in the TECHNICAL DATA table were obtained in compliance with test methods and curing cycles, if applicable, defined in the industry standards referenced on the Technical Data Sheet. Please note that the use of test procedures or methods other than those indicated in the table could lead to different values and that, in such cases, any liability of our company is excluded.

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 nor 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 www.mapei.com. **ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED MAPEI WARRANTIES.**

Before using, the user must determine the suitability of our products for the intended use, and the user alone assumes all risks and liability. **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.**

CONTACT INFORMATION

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

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