

# Ultramastic ECO

High-Performance Floor and Wall Tile Adhesive



## DESCRIPTION

Ultramastic ECO™ is a premium, solvent-free adhesive with an excellent open time and terrific sag resistance.

## FEATURES AND BENEFITS

- Easy to trowel with excellent trowel-ridge hold for proper adhesive bonding
- Minimal odor
- Ideal for tile installations in confined spaces

## INDUSTRY STANDARDS AND APPROVALS

- ANSI Exceeds A136.1, Type 1 standards
- ISO 13007: Classification D2TE

## WHERE TO USE

- For installation of tiles up to 6" x 6" (15 x 15 cm) on floors, and up to 12" x 12" (30 x 30 cm) on walls
- For use with ceramic and porcelain tile, and ceramic and porcelain mosaics
- For tub and bath surrounds where service requirements do not exceed ANSI A136.1, Type 1 standards
- For the installation of wall tile in intermittent wet conditions such as tub and shower surrounds with precast bases

## LIMITATIONS

- Do not install over substrates containing asbestos.
- Do not use for exterior applications, steam rooms, shower floors or areas subject to water submersion.
- Do not use for installations subject to water immersion, such as pools and spas.
- Do not apply over waterproofing membranes, particleboard, Masonite, chipboard, Lauan, gypsum floor-patching compounds, metal, vinyl composition tile (VCT) or similar dimensionally unstable substrates.
- Use only at temperatures between 50°F and 95°F (10°C and 35°C).
- Do not use for setting bathroom fixtures or grab bars.
- Do not use to set natural stone, moisture-sensitive stone, agglomerate tiles or resin-backed tiles. For this installation, contact MAPEI's Technical Services for product recommendations.

## SUITABLE SUBSTRATES

- Concrete (cured at least 28 days)
- Masonry block
- Cement mortars and leveling coats
- Cement backer units (CBUs) – see manufacturer's installation guidelines
- Gypsum wallboard interior walls in dry areas only (priming may be required). Refer to the Surface Preparation Requirements reference guide in the Tile & Stone Installation Systems section of MAPEI's Website (to improve adhesion, prime with *ECO Prim Grip™*).
- 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 floors and countertops in dry conditions only)

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 section of MAPEI's Website.

## MIXING

Note: Choose all appropriate safety equipment before use. Refer to Safety Data Sheet (SDS) for more information.

- *Ultramastic ECO* is ready to use. No mixing is required.

## PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. Use a typical notched trowel (see "Approximate Coverage" chart) with sufficient depth to ensure proper transfer, covering at least 80% of the tile back.
2. Using the trowel's flat edge, spread the adhesive on the substrate. Apply additional material and comb the surface using the trowel's notched side to achieve an even-setting bed. Do not spread more adhesive than can be covered with tiles within 30 to 45 minutes. If skinning occurs, scrape off skin and replace with fresh adhesive.
3. Place the tiles firmly into the wet mortar. Push the tiles back and forth in a direction perpendicular to trowel lines, in order to collapse the mortar ridges and achieve maximum coverage. Ensure proper contact between mortar, tile and substrate by periodically lifting a few tiles to check for acceptable coverage.
4. Make all alignments and adjustments immediately (do not exceed 45 minutes).
5. Promptly use water to clean smudges from the face of the tiles while the adhesive is still fresh. Once adhesive has dried, clean with mineral spirits.
6. Provide for expansion and control joints as specified per TCNA handbook, Method EJ171, or TTMAC handbook 09 30 00, Detail 301MJ.
7. Wash hands and tools with water while the adhesive is still fresh.
8. Allow tiles to reach a firm set, and then grout with an appropriate MAPEI grout.

Note: Using mastics with porcelain tiles or in cool, moist conditions will extend the time required for firm set.

## PROTECTION

- Protect containers from freezing in transit and storage. This product is freeze/thaw-stable at temperatures down to 0°F (-18°C). However, protect all water-based products from freezing. If this material is frozen, do not stir it until it has completely thawed.
- Provide for heated storage on site and deliver materials at least 24 hours before tilework begins.
- Protect from water until the adhesive has reached its final set.
- Floors: Keep free from traffic for at least 72 hours after installation. Plywood or stepping boards may be used after 24 hours when occasional stepping on the floor is unavoidable.
- Walls: Protect from impact, vibration and hammering on adjacent and opposite walls for at least 14 days after installation.

### ISO 13007 Classification

Classification Code	Classification Requirement	Test Results
<b>D2 (improved mastic)</b>	Tensile adhesion strength	Pass
	Tensile adhesion strength after aging	Pass
	Adhesion strength after water immersion, $\geq 72.5$ psi (0.5 N/mm <sup>2</sup> )	Pass
	Adhesion strength at elevated temperatures $\geq 145$ psi (1 N/mm <sup>2</sup> )	Pass
<b>T (vertical slip resistance)</b>	Slip $\leq 20$ mils (0.5 mm)	Pass
<b>E (extended open time)</b>	$\geq 72.5$ psi (0.5 N/mm <sup>2</sup> ) after not less than 30 minutes	Pass

## ANSI Specification

Test Method	Specification Standard	Test Results
ANSI A136.1 – shear strength (7 days)	Dry $\geq 50$ psi (0.34 MPa)	Pass
	Wet immersion $\geq 50$ psi (0.34 MPa)	Pass
ANSI A136.1 – shear strength (28 days)	$\geq 50$ psi (0.34 MPa)	Pass

## Product Performance Properties

Laboratory Tests	Results
Application temperature range	50°F to 95°F (10°C to 35°C)
VOC content (SCAQMD Rule 1168)	< 65 g per L
Typical VOC content per SCAQMD Rule 1168 testing methods	50 g per L

## Shelf Life and Product Characteristics

Shelf Life	2 years when stored in original, unopened packaging at 73°F (23°C)
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## Packaging

Size
Pail: 1 U.S. qt. (946 mL)
Pail: 1 U.S. gal. (3.79 L)
Pail: 3.5 U.S. gals. (13.2 L)

### Approximate Coverage\*

Typical Trowel	1 U.S. qt. (946 mL) Coverage	1 U.S. gal. (3.79 L) Coverage	3.5 U.S. gals. (13.2 L) Coverage
1/8" x 1/8" x 1/8" (3 x 3 x 3 mm), Square-notched	12.5 to 17.5 sq. ft. (1.16 to 1.63 m <sup>2</sup> )	50 to 70 sq. ft. (4.65 to 6.50 m <sup>2</sup> )	175 to 245 sq. ft. (16.3 to 22.8 m <sup>2</sup> )
3/16" x 5/32" (4.5 x 4 mm), V-notched	10 to 12.5 sq. ft. (0.93 to 1.16 m <sup>2</sup> )	40 to 50 sq. ft. (3.72 to 4.65 m <sup>2</sup> )	140 to 175 sq. ft. (13.0 to 16.3 m <sup>2</sup> )
1/4" x 1/4" x 1/4" (6 x 6 x 6 mm), Square-notched	6.3 to 8.8 sq. ft. (0.59 to 0.82 m <sup>2</sup> )	25 to 35 sq. ft. (2.32 to 3.25 m <sup>2</sup> )	87.5 to 123 sq. ft. (8.13 to 11.4 m <sup>2</sup> )

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

## ADDITIONAL INFORMATION

Refer to the Safety Data Sheet (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-durabilite@mapei.com](mailto:sustainability-durabilite@mapei.com).

## 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](http://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

### MAPEI Headquarters of North America

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Deerfield Beach, Florida 33442  
1-888-US-MAPEI (1-888-876-2734) / (954) 246-8888

### Technical Services

U.S. and Puerto Rico:

Flooring: 1-800-992-6273

Concrete and heavy construction: 1-888-365-0614

Canada:

1-800-361-9309

### Customer Service

1-800-42-MAPEI (1-800-426-2734)

**Edition Date: October 8, 2024 MK 3000427 (24-2556)**

For the most current product data and BEST-BACKED<sup>SM</sup> warranty information, visit [www.mapei.com](http://www.mapei.com).

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