



# 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.

## USES

- For interior residential and commercial installations of tile on floors, walls, countertops and backsplashes, in light-duty applications (see "Recommended Substrates")
- For installing ceramic and porcelain tile, and ceramic and porcelain mosaics (see "Technical Notes")
- For the installation of wall tile in intermittent wet conditions such as tub surrounds (see "Recommended Substrates" and "Technical Notes")

## RECOMMENDED SUBSTRATES

See MAPEI's Surface Preparation Requirements document at [www.mapei.com](http://www.mapei.com) for further details about MAPEI requirements or contact MAPEI's Technical Services Department.

- Fully cured concrete
- Masonry block
- Cement mortars and leveling coats
- Cement backer units (CBUs) (see manufacturer's instructions for approval)

- Gypsum wallboard – interior dry walls only (to improve adhesion, prime with *Planicrete*® AC)
- APA or COFI Group 1 exterior-glye plywood (interior residential floors and countertops in dry areas)

## IMPORTANT RECOMMENDATIONS

- *Ultramastic ECO* is recommended for interior use in dry or intermittent wet conditions such as countertops, backsplashes, residential tub enclosures and shower walls, according to ANSI A136.1 Type 1. Cementitious adhesives are recommended for tiles adjoining submergible areas.
- MAPEI also advocates the use of priming gypsum drywall before mastic applications. This dramatically enhances the adhesion between the tile, adhesive, paper and gypsum board. MAPEI's recommended primer for this procedure is *Planicrete AC* diluted 1:1 with water.
- Substrates should be clean and free of dust, oil, grease, paint, wax, curing agents, sealers, adhesive residue and any substance that could weaken the adhesive's bond to the substrate. For additional information, see MAPEI's Surface Preparation Requirements document at [www.mapei.com](http://www.mapei.com) or contact MAPEI's Technical Services Department.
- Ceramic and porcelain tile installations require a substrate deflection rating of at least L/360.



## TECHNICAL NOTES

- Do not use in exterior applications.
- Do not use to install tile larger than 6" x 6" (15 x 15 cm) on floors or tile larger than 10" x 10" (25 x 25 cm) on walls.
- Do not use to install glass tiles, natural stone or agglomerate tiles.
- Do not use in steam showers or steam rooms or on submerged substrates or shower floors.
- Do not apply over waterproofing membranes.
- Do not apply directly over gypsum-based patching or leveling compounds, sheet vinyl, vinyl asbestos tile (VAT), vinyl composition tile (VCT), existing ceramic, porcelain or natural stone, self-stick tile, laminate surfaces, metal or fiberglass surfaces, or poured epoxy floors. In addition, plank wood flooring, presswood, particleboard, chipboard, oriented strand board (OSB), pressure-treated plywood, oil-treated plywood, Luan plywood, Masonite and similar dimensionally unstable materials are not recommended for application.
- Do not use as a thick-bed mortar, concrete repair mortar, concrete patching material or skim-coating compound, or use to level subfloors.
- Do not install at temperatures below 50°F (10°C) or above 95°F (35°C).
- Do not use in heavy-duty commercial or industrial applications.

Consult MAPEI's Technical Services Department for installation recommendations regarding substrates and conditions not listed.

## INSTRUCTIONS

### 1. Mixing

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

### 2. Application

- 2.1 Select a typical notched trowel (see chart) with sufficient depth to achieve at least 85% contact to the back of the tile and substrate. Trowel selection will vary depending on the tile size, thickness and substrate profile.
- 2.2 Key adhesive into substrate with the trowel's flat side. This ensures complete contact with the substrate.
- 2.3 Comb adhesive in a single direction. Troweling in a "swirl" pattern is not recommended.
- 2.4 Spread only as much adhesive as can be covered within 30 to 40 minutes. Any adhesive that has "skinned" over should be scraped off and replaced with fresh material.

- 2.5 Place tiles firmly into position into the wet adhesive. Push tiles back and forth in a direction perpendicular to trowel lines so that the adhesive ridges collapse and maximum coverage is achieved.
- 2.6 Remove excess adhesive from joint areas so that at least 2/3 of the tile depth remains available for grouting.
- 2.7 Make all alignment and adjustments before adhesive skins over.
- 2.8 Ensure that proper contact is being achieved between adhesive, tile and substrate by occasionally removing a few tiles and checking for acceptable coverage as described in Section 2.1.

### 3. Cleanup

- 3.1 Remove any excess adhesive from the tile surface while the material is still fresh. Use a damp sponge with clean, warm water. A light-duty Scotchbrite® scrub pad also may be used if necessary.
- 3.2 Clean tools as well while the adhesive is still fresh. Use a damp sponge or a stiff nylon brush with warm water.

### 4. Grouting

- 4.1 Grouting should only begin after the tiles are firmly set and the adhesive has completely dried. This is typically 24 to 48 hours after installation at 73°F (23°C). Drying times may vary, depending on substrate temperature, job-site humidity, and substrate and tile porosity. Keeping the area dry and well-ventilated will help to speed the drying process.
- 4.2 Grout joints with the appropriate MAPEI grout.

### 5. Protection

- 5.1 Do not disturb, grout or walk over tiles for at least 48 hours, or until tiles are firmly set and adhesive has completely dried.
- 5.2 Keep floors free from general traffic for at least 72 hours.
- 5.3 Because temperature and humidity (during and after installation of tile) affect the final curing time of all bonding materials, allow for extended periods of cure and protection when job-site temperatures drop below 60°F (16°C) and/or when relative humidity is higher than 70%.

### 6. Expansion and Control Joints

- 6.1 Provide for expansion and control joints where specified. Refer to the most recent TCA Detail EJ171 or TTMAC Specification Guide 09300 Detail 301EJ.
- 6.2 Do not span expansion or control joints with tile or stone.
- 6.3 Do not cover, bridge or fill any expansion or control joints with *Ultramastic ECO*.
- 6.4 Install the specified compressible bead and sealant in all expansion and control joints.

## TECHNICAL DATA (based on 73°F [23°C] and 50% relative humidity)

References: Meets or exceeds ANSI A136.1 Type 1 industry standards; meets or exceeds SCAQMD (South Coast Air Quality Management District) Rule #1168 with a VOC content below 65 g/L

Open time .....	30 to 45 minutes
Adjustability .....	30 to 40 minutes
Final set (before grouting).....	16 to 24 hours
Application temperature range .....	50°F to 95°F (10°C to 35°C)
Freeze/thaw stability at 0°F (-18°C) .....	Stable 5 cycles
Slippage .....	None
pH .....	Approximately 8.1
VOC content.....	Below 65 g/L
Ready for grouting .....	After 24 to 48 hours, or once tiles are firmly set and adhesive is dry
Protection of the finished installation from	
general foot traffic and impact.....	At least 72 hours
Cleanability .....	With water while fresh
Consistency .....	Smooth paste
Color.....	White
Storage .....	1 year when stored in a dry location, sealed in original containers at room temperature. Protect product from freezing.
Health and safety.....	Consult the Material Safety Data Sheet (MSDS) for safe-handling instructions.


## PACKAGING


Pails: 1 U.S. qt. (946 mL); 1 U.S. gal. (3,79 L); 3.5 U.S. gals. (13,2 L)

## TYPICAL TROWELS AND APPROXIMATE COVERAGES\*

### 1 U.S. qt. (946 mL):

3/16" x 5/32" x 3/16" .....	10 to 15 sq. ft.	
(4,5 x 4 x 4,5 mm) .....	(0,93 to 1,39 m²)	

1/4" x 1/4" x 1/4" .....	6 to 9 sq. ft.	
(6 x 6 x 6 mm) .....	(0,56 to 0,84 m²)	

1/4" x 3/8" x 1/4" (for walls only).....	4 to 5 sq. ft.	
(6 x 10 x 6 mm) .....	(0,37 to 0,46 m²)	

### 1 U.S. gal. (3,79 L):

3/16" x 5/32" x 3/16" .....	40 to 60 sq. ft.
(4,5 x 4 x 4,5 mm) .....	(3,72 to 5,57 m²)

1/4" x 1/4" x 1/4" .....	25 to 37 sq. ft.
(6 x 6 x 6 mm) .....	(2,32 to 3,44 m²)

1/4" x 3/8" x 1/4" (for walls only) .....	15 to 20 sq. ft.
(6 x 10 x 6 mm) .....	(1,39 to 1,86 m²)

### 3.5 U.S. gals. (13,2 L):

3/16" x 5/32" x 3/16" .....	175 to 200 sq. ft.
(4,5 x 4 x 4,5 mm) .....	(16,3 to 18,6 m²)

1/4" x 1/4" x 1/4" .....	100 to 135 sq. ft.
(6 x 6 x 6 mm) .....	(9,3 to 12,5 m²)

1/4" x 3/8" x 1/4" (for walls only).....	65 to 85 sq. ft.
(6 x 10 x 6 mm) .....	(6,04 to 7,90 m²)

\* Trowel dimensions are width/depth/space. Coverages shown are given for estimating purposes only. Actual job-site coverage may vary according to the type of trowel used, substrate conditions and setting practices

**Ultramastic  
ECO™**

**NOTICE**

*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.*

**MAPEI**

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**Additional Information**

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product data, visit  
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