



# Type 1™

## Premium Tile Adhesive



### DESCRIPTION

*Type 1* is a premium-grade, traditional, nonflammable, acrylic adhesive for setting glazed and unglazed ceramic and porcelain tiles on walls, floors and countertops. This adhesive is used for interior applications only.

### FEATURES AND BENEFITS

- Excellent grab: Up to 12" x 12" (30 x 30 cm) tile
- Low in odor
- Smooth and easy to spread
- Extended open time

### INDUSTRY STANDARDS AND APPROVALS

- ANSI: Meets or exceeds A136.1, Type 1 standards
- ISO 13007: Classification D1TE

### WHERE TO USE

- For use with most types of glazed and unglazed ceramic and porcelain tile, and ceramic and porcelain mosaics for walls and floors
- Use to install 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 tub and bath surrounds where service requirements do not exceed ANSI A136.1, Type 1
- For the installation of tile on walls in intermittent wet conditions such as tub and shower surrounds

### LIMITATIONS

- Do not install over substrates containing asbestos.
- Do not use for exterior applications, steam rooms, shower floors or areas subject to water immersion.
- Do not apply over waterproofing, crack-isolation or uncoupling membranes.
- Do not apply over particleboard, Masonite, oriented strand board (OSB), Lauan, gypsum floor-patching compounds, metal or similar dimensionally unstable substrates.
- Use only at temperatures between 40°F and 95°F (4°C to 35°C).
- Do not use for setting bathroom fixtures or grab bars.
- Do not use to set glass tile or natural stone.\*
- Do not use to encapsulate radiant-heat flooring systems.

*\*For these installations, contact MAPEI's Technical Services Department 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. See the "Surface preparations requirements" reference guide in the Tile & Stone Installation Systems section of MAPEI's Website.

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- 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).

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

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

- Ready to use; no mixing is required.

## PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. Choose a notched trowel (see "Approximate Coverage" chart below) 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 onto the substrate. Apply additional material and comb the adhesive in one direction 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 the skin and replace with fresh adhesive.
3. Place tiles firmly in position on the fresh adhesive. Push the tiles back and forth in a direction perpendicular to the trowel lines, to collapse the adhesive ridges and help achieve maximum coverage. Ensure proper contact between the fresh adhesive, tile and substrate by periodically lifting a few tiles to check for acceptable coverage.
4. Make all alignments and adjustments immediately (not exceeding 45 minutes).
5. Promptly use water to clean smudges from the face of the tiles while the adhesive is still fresh. Once the adhesive has dried, clean with mineral spirits.
6. Provide for expansion and control joints as specified per TCNA Method EJ171 or TTMAC Specification Guide 09300, Detail 301EJ.
7. Wash hands and tools with water while adhesive is still fresh. If the adhesive has dried, use mineral spirits.

8. Allow tiles to reach a firm set, typically after 24 hours, 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 a 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, typically from 24 to 48 hours. For shower walls, wait at least 72 hours.
- Floors: Keep free from general 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 Result
D1 (normal mastic)	Tensile adhesion strength; tensile adhesion strength after aging	Pass
T (vertical slip resistance)	Slip $\leq 0.5$ mm	Pass
E (extended open time)	$\geq 0.5$ N/mm <sup>2</sup> after not less than 30 minutes	Pass

## ANSI Specification

Test Method	Specification Standard	Test Result
ANSI 136.1 – shear strength (7 days)	Dry $\geq 50$ psi (0.34 MPa)	Pass
	Wet immersion $\geq 50$ psi (0.34 MPa)	Pass
ANSI 136.1 – shear strength (28 days)	$\geq 50$ psi (0.34 MPa)	Pass
ANSI 136.1 – resistance to mold growth	Will not support mold growth when tested in accordance to Section 6.4	Pass




## Shelf Life and Application Properties

Shelf life	2 years when stored in original, unopened packaging at 73°F (23°C)
VOCs (Rule #1168 of California's SCAQMD)	60 g per L
VOCs (Section 01350 of California's CDPH)	Passed

## Packaging

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

## Approximate Coverage\*

Typical Trowel	Per 1 U.S. qt. (946 mL)	Per 1 U.S. gal. (3.79 L)	Per 3.5 U.S. gals. (13.2 L)
1/8" x 1/8" x 1/8" (3 x 3 x 3 mm) for penny round mosaic tile, and mosaic tile measuring 3/4" (19 mm) long x 1/8" (3 mm) thick 	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) for flat-backed tiles up to 4" x 4" (10 x 10 cm) 	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) for tiles between 4" x 4" (10 x 10 cm) and 12" x 12" (30 x 30 cm) 	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.

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## RELATED DOCUMENTS

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

\* 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.

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](mailto:sustainability_USA@mapei.com) (USA) or [sustainability-durabilite@mapei.com](mailto:sustainability-durabilite@mapei.com) (Canada).

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