



Type 1 Mastic

1. PRODUCT NAME

TEC® Type 1 Mastic
(101)

2. MANUFACTURER

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3. DESCRIPTION

Type 1 Mastic can be used for installing ceramic, porcelain, quarry and mosaic tile on interior floors and walls. Recommended for floor, wall, and countertop applications. Maximum tile size for floor applications is 8" x 8" and wall applications is 12" x 12". It meets ANSI A136.1 Type I and II specifications, spreads easily, sets quickly, and is easy to clean up.

Key Features and Benefits

- Tile up to 12" x 12" on walls, 8" x 8" on floors
- Mold and mildew resistant
- Spreads easily
- Easy to use, easy to clean-up
- Freeze thaw stable
- Can be used on shower walls*
- Contributes to LEED® project points
- Low VOC

*not for use over waterproofing membranes

Packaging

3.5 gallon plastic pail (13.24 L)	Product #15035544
1 gallon plastic pail (3.78 L)	Product #15035550
1 quart plastic pail (946 mL)	Product #15035556

Coverage

Coverage will vary with type of substrate. Coverages below are approximations. Do not exceed trowel recommendations.

Tile Size	Trowel Size	Approximate Coverage in ft ² (m ²)		
		1 quart (946 mL)	1 gallon (3.78 L)	3.5 gallon (13.24 L)
Up to 6" x 6" (150 x 150 mm)	³ / ₁₆ " x ⁵ / ₃₂ " (4.5 x 4 mm) V-notch trowel	10-12 (0.9-1.1)	41-48 (3.8-4.5)	143-168 (13.3-15.6)
Walls: 6" x 6" – 12" x 12" (150 x 150 mm – 300 x 300 mm)	¹ / ₄ " x ¹ / ₄ " x ¹ / ₄ " (6 x 6 x 6 mm) square-notch trowel	6-8 (0.6-0.7)	25-30 (2.3-2.8)	87-105 (8.1-9.8)
Floors: 6" x 6" – 8" x 8" (150 x 150 mm – 200 x 200 mm)				

Suitable Substrates

When properly prepared, suitable substrates include:

- Concrete—well cured
- Cementitious backer units (CBU)
- Exterior Grade Plywood—APA Grade Trademarked Exposure 1 or better
- Existing ceramic or resilient tile
- Coated glass mat backer board
- Gypsum wallboard (dry areas)
- Water resistant gypsum wallboard
- Cured portland cement plaster
- Masonry

Surface Preparation

All surfaces must be clean, dry, free of dirt, dust, grease, oil, loose paint, wallpaper, and residues of old adhesive, or any foreign matter which might impair adhesion where TEC Type 1 Mastic is spread. Painted enameled walls and floors must be thoroughly scored or sanded to insure a bond to the original base wall or floor. Do not sand any floors or adhesives that are known or suspected to contain asbestos. **Installations where concrete is damp or the concrete is subject to moisture vapor emissions can fail.**

Exterior Grade Plywood Floors—Wood subflooring must be structurally sound and securely fastened with screw type or ring shank nails and adhesive. Plywood flooring should be free from dust, dirt, oil, grease, etc. Follow TCNA Installation Detail F142.

Cementitious Backer Units—Follow manufacturer's instructions.

Coated Glass Mat Backerboard—Reference TCNA Installation Details F146, W245, B419 or B420.

Existing Ceramic Tile—Remove surface contaminants. Mechanically abrade with carborundum stone.

Storage

Store in cool, dry location. Do not store open containers.

Shelf Life

Maximum 1 year from date of manufacture in properly stored, unopened container.

Limitations

- Not for use in conjunction with PVC heating mats or coils, or over polyethylene membranes.
- Not for use over anti-fracture & waterproofing membranes, sheets or mats.
- Not for use on shower floors or pans, in steam rooms, in steam showers, swimming pools, or any place that will receive standing water.
- Not for use on any non-porous substrate
- Not for use for leveling or in excess of trowel recommendations.
- Not for exterior use.
- Not for use where temperature will exceed 120°F.
- Do not use over surfaces such as tempered hardboard, pressboard, cement asbestos board, particle board, oriented strand board, lauan plywood, gypsum patches, synthetic flooring (linoleum, asphalt and vinyl tile) or similar unstable substrates.
- Not for use with green marble, or to install resin backed marble or resin backed aggregate marble.
- Not for setting any marble over plywood floors or plywood countertops.
- Not for use with glass tile.
- Not for use with lug back floor tile.
- Not for setting ceramic accessories such as towel bars, soap dishes, and grab bars.
- Not to be used underneath most backerboards. (Check manufacturer instructions.)

Cautions

Read complete cautionary information printed on product container prior to use. For medical emergency information, call 1-888-853-1758.

This Product Data Sheet has been prepared in good faith on the basis of information available at the time of publication. It is intended to provide users with information about and guidelines for the proper use and application of the covered TEC® brand product(s) under normal environmental and working conditions. Because each project is different, H.B. Fuller Construction Products Inc. cannot be responsible for the consequences of variations in such conditions, or for unforeseen conditions.

4. TECHNICAL DATA

Applicable Standards

Meets ANSI A136.1 Type I & II Specifications

TEC® Type 1 Mastick (101)		
Description	ANSI Requirement	Typical Results
Conditioned Dry	> 50 psi (0.34 MPa)	Passes
Shear Strength 28 Day, Room Temperature Type I Water Immersion After Accelerated Heat Aging	> 50 psi (0.34 MPa) > 50 psi (0.34 MPa) > 75% dry shear strength retention	Passes Passes Passes
Heat Resistance	Maintains at least 10 lb. (4.5 kg) static load in shear at 120°F (49°C) for 24 hours	Passes
Impact Test	All tiles remain bonded after impact	Passes
Stain Test	< 70% penetration	Passes
Stability in Storage	4 weeks minimum	Passes
<i>Tested in accordance with American National Standards for Organic Adhesives for Installation of Ceramic Tile—ANSI A136.1, Type I</i>		
Resistance to Mold Growth	No mold growth	Passes

Greater than: > Greater than or equal to: ≥ Less than: < Less than or equal to: ≤

Physical Properties

Description	
Physical State	Paste
Color	White
Odor	Nil
Open Time [at 72°F (22°C)]	20 to 35 minutes
VOC/Liter of Material	1.3 g/L
Foot Traffic Rating (ASTM C627)	Residential to light commercial
Storage	Store in cool, dry location. Do not store open containers. Freeze/thaw stable.
Shelf Life	Maximum 1 year from date of manufacture in properly stored, unopened package.

5. INSTALLATION INSTRUCTIONS

Application

- The adhesive, tile, and room should be maintained at a minimum temperature of 50°F for 24 hours prior to installation. The minimum 50°F temperature must be maintained during the entire installation, and for a minimum of 48 hours following.
- Use a 3/16" x 5/32" V-notched trowel for installation of tile up to 6" x 6". For tiles larger than 6" x 6", use a 1/4" x 1/4" x 1/4" square-notched trowel. Maximum tile size: for walls is 12" x 12"; for floors is 8" x 8".
- Only apply the amount of adhesive to surface that can be tiled over in 15 minutes. DO NOT SET TILE IF SKIN HAS FORMED ON THE ADHESIVE. If adhesive skin has formed, remove and reapply. This time will vary with the temperature, humidity, and the substrate. Apply the adhesive to the substrate first with the flat side of the trowel. Then comb with the notched side of the trowel in one direction. Firmly press tiles into the adhesive and move them perpendicularly across the ridges. Do not slide tiles against each other. Periodically remove and check a tile to assure complete coverage.

- Cure times will vary with size and porosity of tile and porosity of floor (porcelain tiles take considerably longer to cure), humidity and temperature (cooler temperatures will extend set times). Typical floor installations take longer to cure. No traffic is permitted on tiles prior to curing. Grouting may begin once adhesive is firmly set up. Up to 6" x 6" wall tiles require wait time of 6 hours or longer. Over 6" x 6" tile or any floor tile application requires at least 24-48 hours. Check to determine readiness by trying to twist the tile and see if it moves. If it does, additional cure time is required. If the tile won't twist but you hear a wet suction sound when the tile is stepped on, additional cure time is also required. The use of TEC® brand grouts is highly recommended.
- Full cure takes at least 48-72 hours depending on conditions. The finished installation must be protected from freezing until completely cured.
- For glass tile, refer to manufacturer's specifications. For marble and granite installations, test in an inconspicuous area as discoloration may occur. Most discoloration disappears after 30 days. For proper curing, do not abut marble tiles together.

Note: It is the sole responsibility of the installer to determine the suitability and compatibility of the adhesive for the intended application.

Clean-up

While adhesive is still fresh, clean tools, hands, and excess materials from face of tile with warm soapy water. Dried adhesive must be removed with mineral spirits.

6. AVAILABILITY

TEC premium surface preparation, tile, stone, carpet, wood and resilient floor covering installation products are available nationwide. To locate TEC products in your area, please contact:

Phone: 800-832-9002
Website: tecspecialty.com

7. LIMITED WARRANTY

The product(s) covered by this Product Data Sheet are sold subject to a Limited Warranty and related terms. **H.B. Fuller Construction Products disclaims the implied warranties of merchantability and fitness for a particular purpose and all incidental and consequential damages arising out of the sale, purchase or use of this product.** For Limited Warranty details visit tecspecialty.com. To obtain a hard copy of the Limited Warranty call H.B. Fuller Construction Products at 800-832-9023 or mail a written request to the address in Section 2 of this Product Data Sheet.

8. MAINTENANCE

Not applicable

9. TECHNICAL SERVICES

Technical and safety literature

To acquire technical and safety literature, please visit our website at tecspecialty.com.

10. FILING SYSTEM

Division 9



To learn more, visit TECspecialty.com



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