PermaLastic® 200 Polymer Modified Thin Set Mortar

Updated October 2024

1. PRODUCT NAME

TEC® PermaLastic® 200 Polymer Modified Thin Set Mortar (426/427)

2. MANUFACTURER

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3. DESCRIPTION

TEC PermaLastic 200 Polymer Modified Thin Set Mortar is for use with porcelain and ceramic tiles. Mixed with water, it exceeds ANSI A118.4 and ANSI A118.11 specifications. Use interior and exterior.

Key Features and Benefits

- Professional grade with excellent bond strength
- Bonds to a variety of surfaces, including plywood
- Approved for setting under and tiling over uncoupling membranes
- Mix with water – no additive needed
- Interior/exterior
- Exceeds ANSI A118.4 and A118.11 specifications

Packaging

50 lb. (22.68 kg) moisture-resistant bags

Gray	Product #15035761
White	Product #15035762

Coverage

Coverage will vary with condition of substrate. Required trowel size will vary with the tile size, type and substrate uniformity. Select the trowel size that will ensure 100% coverage. Figures below are presented only as guidelines.

Trowel Size	Approximate Coverage per 50 lbs. (22.68 kg)
¼" x ¼" x ¼" (6 x 6 x 6 mm) square-notch trowel	85-95 sq. ft. (7.9-8.8 m²)
¼" x ⅜" x ¼" (6 x 9 x 6 mm) square-notch trowel	58-68 sq. ft. (5.4-6.3 m²)

Suitable Substrates

Mixed with water, TEC PermaLastic 200 Polymer Modified Thin Set Mortar exceeds ANSI A118.4 and ANSI A118.11 specifications. Use interior and exterior. When properly prepared, suitable substrates include:

- Gypsum wallboard
- Water resistant gypsum wallboard (greenboard)
- Cementitious backer units (CBU)
- Glass mat backerboard
- Cured concrete, cured mortar beds, brick and masonry
- APA Grade Trademarked Exposure 1 Plywood [underlayment grade or better, two layers, 1 1/8" (28 mm) total minimum thickness, interior floors only]
- Existing ceramic tile and natural stone (provided existing flooring is well-bonded to an approved substrate)*
- Vinyl composition tile, asphalt tile, linoleum or non-cushioned vinyl sheet goods (provided such surfaces are single layered, well-bonded to an approved substrate and properly prepared)
- Adhesive residue (except tacky or pressure-sensitive adhesive)
- Extruded foam waterproof tile board
- Uncoupling membranes

*Prime first with TEC® Multipurpose Primer

Substrate Preparation

All substrates must be dry, structurally sound with maximum deflection per industry standards of L/360 for ceramic tile installations and L/720 for natural stone installations under all live and dead loads; and be free from oil, grease, dust, paint, sealers or concrete curing compounds. All contaminants should be removed prior to installation of tile. Surface protrusions and tile glazes shall be removed by sanding, scraping or scarifying. After preparation, remove all dust by vacuuming.

Notes: Vinyl asbestos tile or any substrate containing asbestos shall not be sanded, scored or scarified because of the potential health hazard of breathing dust. Any substrate containing asbestos must be handled in accordance with existing EPA regulations. Contact your local EPA office.

Expansion joints must be provided in the tile work over all construction, control and expansion joints in the backing and where backing materials change. Follow ANSI A108.01 Section 3.7 Requirements for Expansion Joints.

Maximum variations in all substrates must not exceed 1/4" in 10 ft. or 1/16" in 1 ft. from the required plane. For non-level, interior surfaces use TEC Self-Leveling Underlayment.

Storage

Store in a cool, dry area away from direct sunlight. Do not store open containers.

Shelf Life

Maximum of 1 year from date of manufacture in unopened package.

Limitations

- Only install when the temperature is between 50ºF (10ºC) - 90ºF (32ºC).
- For non-green marble tile applications, use white thin set mortars.
- For all resin-backed stone, prime back of stone first with the TEC Multipurpose Primer.
- Substrate temperature should be a minimum of 43ºF (6ºC) during application and air temperature maintained above 50ºF (10ºC) during installation and for 72 hours after installation.
- Not for use over rubber, strip wood floors, oriented strand board, particle board, lauan plywood or CDX plywood.
- Do not apply over single-layer wood floors.
- Certain natural stone tiles may be affected by mortar shadowing or staining. Test a small area prior to use to determine suitability.

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 Standard

Meets ANSI A118.4 and A118.11 specifications.

PermaLastic 200 Polymer Modified Thin Set Mortar (426/427)

Description	ANSI Requirement	Typical Results
28 Day Shear Strength Glazed Wall Tile Impervious Ceramic Tile (Porcelain)	 > 300 psi (2.1 MPa) > 200 psi (1.4 MPa)	 350-400 psi (2.4-2.8 MPa) 300-325 psi (2.1-2.2 MPa)
Open Time at Room Temperature	> 20 minutes	Pass

Tested in accordance with ANSI 118.11 Specifications for Latex-Modified Dry Set Mortars over Exterior Grade Plywood

Description	ANSI Requirement	Typical Results
28 Day Shear Strength Quarry Tile	> 150 psi (1.0 MPa)	150-160 psi (1.0-1.1 MPa)

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

Physical Properties

Description	
Physical State	Dry powder
Color	Available in white and gray
Pot Life	2 to 3 hours
Initial Cure [at 72°F (22°C)	16 to 24 hours
Final Cure	21 days
Foot Traffic Rating (ASTM C627)	Residential to Extra Heavy Commercial (depending on substrate)

5. INSTALLATION INSTRUCTIONS

Mixing

For best results, maintain all tiling materials, substrates, room and adhesives at 50°-70°F (10-21°C) for 24 hours before and 48 hours after installation. Thoroughly mix 50 lbs. (22.68 kg) PermaLastic 200 Mortar with 5-6 qts. (4.7-5.7 L) clean, cool water. Add powder to liquid for ease of mixing. Mix material for 2-5 minutes to a thick creamy consistency, then allow the mortar to stand for 10 minutes. Remix for 1-2 minutes and apply. Avoid breathing dust and contact with eyes and skin. Avoid using high speed mixing, not to exceed 300 rpm, to prevent entraining air.

Application

Apply mortar using flat side of trowel to promote better substrate contact, then comb in one direction with the notched side of the trowel. Spread only an area that can be tiled while surface is still tacky (typically 20-30 minutes). Press tiles into setting bed, then push in a direction perpendicular to the notched trowel ridges to achieve optimum coverage. Apply mortar in a heavy enough layer so that complete contact (no voids) between mortar and tile is accomplished when tile is positioned. It may be necessary to “back-butter” large tiles to achieve complete coverage and firm support. Periodically remove and check a tile to assure proper coverage. Keep a minimum of ⅔ of the joint depth between tiles for grouting.

Open time and tile hand adjustability may vary with job site conditions. Stir occasionally during use to maintain the smooth, creamy consistency of the product. **Do not add additional water.**

Drying Time

Grouting may be accomplished when tiles are held firmly in place, typically 16 to 24 hours after installation is completed. No traffic is permitted over the tiles prior to grouting. Cold temperatures or high humidity may extend curing time, working time, and pot life. Hot temperatures or low humidity may decrease curing time, working time, and pot life. Unglazed tiles may require sealing prior to grouting so discoloration will not occur. The use of TEC brand grouts such as TEC® Power Grout® is highly recommended.

Clean-up

Clean tools, hands, and excess materials from face of tile, while mortar is still fresh, with warm soapy water.

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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