



PermaSet® 200 Flooring Mortar

Updated November 2023

1. PRODUCT NAME

TEC® PermaSet® 200 Flooring Mortar
(030/031)

2. MANUFACTURER

H.B. Fuller Construction Products Inc.
1105 South Frontenac Street
Aurora, IL 60504-6451 U.S.A.
800.552.6225 Office
800.832.9023 Technical Support
800.952.2368 Fax
tecspecialty.com

3. DESCRIPTION

PermaSet 200 Mortar is a portland cement-based, dry-set, ceramic tile setting mortar for floors.

Key Features and Benefits

- Designed for floor applications
- Interior applications when mixed with water
- Exterior applications require use with TEC acrylic latex mortar additive
- Mixed with water, meets ANSI A118.1 and ISO 13007 C1
- Mixed with TEC® XtraFlex™ additive, *exceeds* ANSI A118.4 and A118.11
Mixed with TEC® Acrylbond® AMA additive, *meets* ANSI A118.4 and A118.11
- Contributes to LEED® project points
- Zero VOC

Packaging

50 lb. (22.68 kg) moisture-resistant bags
Gray
White

Product #15035782
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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-notched trowel	100-110 sq. ft. (9.3-10.2 m ²)
¼" x ¼" x ⅜" (6 x 6 x 9 mm) square-notch trowel	80-85 sq. ft. (7.4-7.9 m ²)

Suitable Substrates

When properly prepared per TCNA guidelines, acceptable substrates include:

- Cementitious backer units (CBU)
- Glass mat backerboard. **Requires use with TEC Acrylbond AMA or XtraFlex Additive.**
- Adhesive residue (except tacky or pressure-sensitive adhesive). **Requires use with TEC Acrylbond AMA or XtraFlex Additive.**
- Cured concrete, cured mortar beds, brick and masonry (if exterior). **Requires use with TEC Acrylbond AMA or XtraFlex Additive.**
- APA Grade Trademarked Exposure 1 Plywood underlayment grade or better.
- Existing ceramic tile and natural stone, provided existing flooring is well-bonded to an approved substrate. **Requires use with TEC Acrylbond AMA or XtraFlex Additive.**
- Vinyl composition tile, asphalt tile, linoleum or non-cushioned vinyl sheetgoods (provided existing flooring is well-bonded to an approved substrate). **Requires use with TEC Acrylbond AMA or XtraFlex Additive.**

Substrate Preparation

All substrates must be dry, structurally sound with maximum deflection per

industry standards of 1/360 for ceramic tile installations and 1/720 for natural stone installations; and free from oil, grease, dust, paint, sealers or concrete curing compounds. All contaminants must 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 must 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, or TCNA EJ171 Joint Guidelines for Ceramic, Glass and Stone.

Maximum variations in all substrates must not exceed ¼" in 10 ft. (6 mm in 3 m) or 1/16" in 1 ft. (1.6 mm in 0.3 m) from the required plane. For non-level, interior floors use an approved TEC Self-Leveling Underlayment.

For best results over plywood and other suitable porous substrates, wipe the surface clean with a damp sponge just prior to application of mortar.

Storage

Store in a cool, dry location. Do not store open bags.

Shelf Life

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

Limitations

- Not for installing green marble, other moisture-sensitive stone tile or resin-backed marble; use TEC® AccuColor EFX® Epoxy Grout and Mortar.
- Only install when the temperature is between 50°F (10°C) - 90°F (32°C).
- Do not use over tempered hardboard (e.g. Masonite), particle board, lauan, plastic, vinyl asbestos tile or painted surfaces.
- Substrate temperature should be a minimum of 43°F (6°C) during application and air temperature maintained above 50°F (10°C) during installation and for 72 hours after installation.
- Do not use over wood other than exterior grade plywood (for interior applications only) when mixed with TEC acrylic latex mortar additive.
- Do not use for exterior applications unless mixed with TEC acrylic latex mortar additive.
- For floor applications only.
- 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

PermaSet 200 Flooring Mortar (030/031)		
Description	ANSI Requirement	Typical Results
<i>Tested in accordance with ANSI A118.1 Specifications for Dry Set Mortars</i>		
7 Day Shear Strength Glazed Wall Tile	> 200 psi (1.4 MPa)	> 310 psi (2.1 MPa)
28 Day Shear Strength Porcelain Mosaic Tile	> 150 psi (1.0 MPa)	> 165 psi (1.1 MPa)

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

Product Data

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)
Storage	Store in a cool, dry area. Do not store open bags.
Shelf Life	Maximum 1 year from date of manufacture in properly stored, unopened package.

*Temperature and humidity will affect pot life and cure time

5. INSTALLATION INSTRUCTIONS**Mixing—With Water**

For best results, maintain all tiling materials, substrates, room and mortars at 50°-70°F (10-21°C) for 24 hours before and 48 hours after installation. Thoroughly mix 50 lbs. (22.68 kg) PermaSet 200 Mortar with 5 to 6 quarts (4.7-5.7 L) clean, cool water. Add powder to liquid for ease of mixing. Mix material to a thick creamy consistency, then allow the mortar to stand for 10 minutes. Remix 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.

Mixing—With Latex Additive

For improved performance in any application, use a TEC acrylic latex mortar additive in place of water. For installations subjected to freeze/thaw conditions; bonding over most non-cementitious substrates; bonding porcelain and other difficult-to-bond tile; or any ANSI A118.4 or A118.11 latex mortar project, the use of an additive is required.

When using a mortar additive, always follow label directions for detailed mixing and substrate recommendations.

Application

Key in 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 15 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 2/3 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.**

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

Clean-up

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

Grouting/Curing

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. Some tiles may require sealing prior to grouting so discolorations will not occur. The use of TEC brand grouts is highly recommended.

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



Conforms with LEED v4 low emitting interiors.
Compliant with (CDPH) Standard Method v1.2 VOC Emissions.



To learn more, visit TECSpecialty.com



H.B. Fuller Construction Products Inc. | 1105 South Frontenac Street Aurora, IL 60504-6451



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