PermaFlex® 300 Latex Modified Thin Set Mortar

1. PRODUCT NAME
TEC® PermaFlex® 300 Latex Modified Thin Set Mortar (034/035)

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
tescpecialty.com

3. DESCRIPTION
TEC® PermaFlex® 300 Mortar is a one-part latex modified thin set mortar for installing ceramic, porcelain and natural stone tiles. For use over a variety of substrates, PermaFlex® 300 Mortar provides a reliable bond for basic residential or commercial installations.

Key Features and Benefits
• Polymer-modified; no additive required — just add water and mix
• Good workability, for interior or exterior applications
• Meets ANSI A118.4 and ISO 13007 C2
• Contributes to LEED® project points
• VOC 0

Packaging
50 lb. (22.68 kg) moisture-resistant bags
Gray  Product #7070203113
White  Product #7070203113

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.

<table>
<thead>
<tr>
<th>Trowel Size</th>
<th>Approximate Coverage per 50 lbs. (22.68 KG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>¼&quot; x ¼&quot; x ¼&quot; (6 x 6 x 6 mm)</td>
<td>100-110 sq. ft. (9.3-10.2 m²)</td>
</tr>
<tr>
<td>square-notch trowel</td>
<td></td>
</tr>
<tr>
<td>¼&quot; x ¼&quot; x ⅛&quot; (6 x 6 x 9 mm)</td>
<td>80-85 sq. ft. (7.4-7.9 m²)</td>
</tr>
<tr>
<td>square-notch trowel</td>
<td></td>
</tr>
</tbody>
</table>

Suitable Substrates
When properly prepared, acceptable substrates include:
• Cured concrete, cured mortar beds, brick and masonry (interior and exterior installations)
• Gypsum wallboard (dry interior wall areas only)
• Water resistant gypsum wallboard (e.g.: greenboard, interior walls only, dry to intermittent water exposure only)
• Cementitious backer units (CBU) or glass mat backerboard
• Existing unglazed ceramic tile and natural stone, provided existing flooring is permanently broken.
• Certain natural stone tiles may be affected by mortar shadowing or staining.

Substrate Preparation
All substrates must be dry, structurally sound with maximum deflection per industry standards of ½⁄80 for ceramic tile installations and ⅞⁄20 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: This product cannot be used over vinyl tile. 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 ⅛" in 1 ft. (1.6 mm in 0.3 m) from the required plane. For non-level, interior surfaces use TEC® EZ Level® Premium 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
• Do not adjust tile after mortar takes its initial set or the bond will be permanently broken.
• Do not soak tile.
• Do not use worn trowels. It is important to have the ridges of the tile setting mortar the full depth of the trowel notches.
• Do not use over exterior grade plywood, masonite, particle board, luan, plastic, vinyl composition tile, vinyl asbestos tile or painted surfaces.
• Do not use over cut back adhesive.
• Do not use as a medium bed tile setting mortar.
• Do not use as a medium bed tile setting mortar.
• Do not allow traffic on freshly installed tile for 16-24 hours.
• Do not allow heavy traffic until 72 hours after installation of tile.
• 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 specifications.

<table>
<thead>
<tr>
<th>PermaFlex® 300 Latex Modified Thin Set Mortar (034/035)</th>
<th>Description</th>
<th>ANSI Requirement</th>
<th>Typical Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 Day Shear Strength Glazed Wall Tile</td>
<td>&gt; 300 psi (2.1 MPa)</td>
<td>&gt; 390 psi (2.7 MPa)</td>
<td></td>
</tr>
<tr>
<td>28 Day Shear Strength Porcelain Mosaic Tile</td>
<td>&gt; 200 psi (1.3 MPa)</td>
<td>&gt; 330 psi (2.3 MPa)</td>
<td></td>
</tr>
<tr>
<td>Quarry Tile</td>
<td>&gt; 150 psi (1.0 MPa)</td>
<td>&gt; 380 psi (2.6 MPa)</td>
<td></td>
</tr>
</tbody>
</table>

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

NOTE: Test results obtained under controlled laboratory conditions at 72°F (22°C) and 50% relative humidity. Tested using 5.27 qts. (5.0 L) water per 50 lbs. (23 kg) bag. Reasonable variations can occur due to atmospheric and job site conditions.
**Physical Properties**

**Description**

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Dry powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Available in white and gray</td>
</tr>
<tr>
<td>Pot Life</td>
<td>2 to 3 hours</td>
</tr>
<tr>
<td>Initial Cure [at 72°F (22°C)]</td>
<td>16 to 24 hours</td>
</tr>
<tr>
<td>Final Cure</td>
<td>21 days</td>
</tr>
<tr>
<td>Foot Traffic Rating (ASTM C627)</td>
<td>Residential to Extra Heavy Commercial (depending on substrate)</td>
</tr>
<tr>
<td>Storage</td>
<td>Store in cool, dry location. Do not store open containers.</td>
</tr>
<tr>
<td>Shelf Life</td>
<td>Maximum 1 year from date of manufacture in properly stored, unopened package.</td>
</tr>
</tbody>
</table>

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) PermaFlex® 300 Mortar with 5-6 qts. (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.

**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 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.

**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. Unglazed 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 Tile and Stone 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 tcspecialty.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 tcspecialty.com.

10. FILING SYSTEM

Division 9