1. PRODUCT NAME
TEC® Super Flex™ Ultra-Premium Thin Set Mortar (392/393)

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
Whether for new construction or renovation, Super Flex™ premium latex mortar delivers unsurpassed bonding strength with virtually any tile and substrate combination. Perfect for porcelain and most glass tile, Super Flex™ mortar’s high polymer solids content, together with its special adhesion promoter, ZS-100®, give you unparalleled bond strength.

Key Features and Benefits
- Flexible: absorbs ¼” (1.6 mm) in-plane movement
- Patented bonding formula
- Approved for up to 20” (50 cm) o.c. manufactured, I-beam, floor truss systems.
- Best for bonding porcelain tile
- One part—just add water and mix
- Exceeds ANSI A118.4E, A118.11 and A118.15E specifications
- Interior/exterior use
- Zero VOC
- Contains recycled materials*
  * Gray formula contains 7% pre-consumer recycled material.
- White formula contains 0% pre-consumer recycled material.

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>
<th>Approximate Coverage per 25 lbs. (11.34 kg)</th>
<th>Approximate Coverage per 9.75 lb. Pure Pak® container (4.42 kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>¼” x ¾” (4.7 x 4 mm) V-notch trowel</td>
<td>28-30 sq. ft. (2.6-2.8 m²)</td>
<td>17-19 sq. ft. (1.6-1.8 m²)</td>
<td>12-14 sq. ft. (1.1-1.3 m²)</td>
</tr>
<tr>
<td>¼” x ¾” (4.7 x 4 mm) square-notch trowel</td>
<td>28-30 sq. ft. (2.6-2.8 m²)</td>
<td>17-19 sq. ft. (1.6-1.8 m²)</td>
<td>12-14 sq. ft. (1.1-1.3 m²)</td>
</tr>
<tr>
<td>⅛” x ¾” (3.2 x 4 mm) square-notch trowel</td>
<td>33-38 sq. ft. (3.1-3.5 m²)</td>
<td>25-30 sq. ft. (2.3-2.5 m²)</td>
<td>18-21 sq. ft. (1.7-2.0 m²)</td>
</tr>
</tbody>
</table>

Suitable Substrates
When properly prepared, suitable substrates include:
- Cured concrete, cured mortar beds, brick and masonry (interior and exterior installations).
- APA Grade Trademarked Exposure 1 Plywood [Underlayment grade or better, two layers, 1¼” (28 mm) total minimum thickness for joists 16” (40 cm) o.c., interior floors only].

Limitations
- Do not apply over single layer wood floors.
- Not for use over rubber, strip wood floors, oriented strand board, particle board, lauan plywood.
- Do not apply over single layer wood floors.
- Mortar should not be applied when the temperature of the area and substrate to be tiled is below 50°F (10°C) as this delays the curing process.
- Certain natural stone tiles may be affected by mortar shadowing or staining. Test a small area prior to use to determine suitability.

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.

Notes:
- Contains recycled materials
- Zero VOC
- Interior/exterior use
- Exceeds ANSI A118.4E, A118.11 and A118.15E specifications
- Patent number 5,366,550
- ZS-100 is covered under US patent number 5,366,550.
4. TECHNICAL DATA

Applicable Standard
Exceeds ANSI A118.4E, A118.11 and A118.15E specifications
ISO 13007: Classification C2ES1P2

Super Flex™ Ultra-Premium Thin Set Mortar (392/393)

<table>
<thead>
<tr>
<th>Description</th>
<th>ANSI Requirement</th>
<th>Typical Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 Day Shear Strength</td>
<td>&gt; 450 psi (3.10 MPa)</td>
<td>&gt; 600 psi* (4.1 MPa)</td>
</tr>
<tr>
<td>Glazed Wall Tile</td>
<td>&gt; 400 psi (2.76 MPa)</td>
<td>700 psi (4.8 MPa)</td>
</tr>
<tr>
<td>Impervious Ceramic Tile (Porcelain)</td>
<td>&gt; 150 psi (1.03 MPa)</td>
<td>725 psi (5.0 MPa)</td>
</tr>
</tbody>
</table>

*S - ANSI-specified glazed wall tile failed at 600 psi (4.1 MPa)

Sag on Vertical Surfaces ≤ ½" (1.6 mm) 0-½" (0-0.8 mm) 0-½" (0-0.8 mm)

Extended Open Time > 75 psi (0.5 MPa) at 30 Minutes Pass

Adjustability at Room Temperature > 30 minutes 50-70 minutes

Final Set 9-15 hours 11-13 hours

Controlled joint formation (95% of the joint depth between tiles for grouting)

Physical Properties

<table>
<thead>
<tr>
<th>Description</th>
<th>Physical State</th>
<th>Color</th>
<th>Pot Life</th>
<th>Initial Cure</th>
<th>Final Cure</th>
<th>Foot Traffic Rating</th>
<th>Storage</th>
<th>Shelf Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Dry powder</td>
<td>Available in white and gray</td>
<td>2 to 3 hours</td>
<td>16 to 24 hours</td>
<td>21 days</td>
<td>Residential to Extra Heavy Commercial</td>
<td>Store in a cool, dry area away from direct sunlight. Do not store open containers.</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 installation. Maintain recommended room temperature for 48 hours after installation. In a clean mixing container, add Super Flex™ mortar to clean, cool water as specified in the chart.

<table>
<thead>
<tr>
<th>Size</th>
<th>Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 lbs. (22.68 kg)</td>
<td>4½ to 6 quarts (4.3-5.7 L)</td>
</tr>
<tr>
<td>25 lbs. (11.34 kg)</td>
<td>2½ to 3 quarts (2.3-2.8 L)</td>
</tr>
<tr>
<td>9.75 lbs. (4.42 kg)</td>
<td>28-37 fl. oz. (0.83-1.09 L)</td>
</tr>
</tbody>
</table>

Add powder to liquid for ease of mixing. Mix material to a thick creamy consistency. Avoid breathing dust and contact with eyes and skin. Allow the mortar to stand for 10 minutes. Remix and apply. 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 ½ inch 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 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