1. PRODUCT NAME

TEC® Ultimate Large Tile Mortar (382/383)

2. MANUFACTURER

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

3. DESCRIPTION

TEC® Ultimate Large Tile Mortar is a high performing, polymer-modified, full-contact (full-coverage) mortar for installing ceramic, porcelain and natural stone tile. It is ideal for use as a medium bed mortar for heavy and large format tile in both interior and exterior applications. (maximum mortar thickness of 3/16" (19 mm) after the tile is embedded). It can also be used in standard thin-set applications. As a medium bed mortar it significantly reduces the need for back-buttering. It also provides extended open time and has non-sag/non-slump characteristics for wall and floor applications.

Key Features and Benefits

- Thinstem or medium-bed application
- Ideal for use with heavy and large format tile
- Non-sag for wall applications and non-slump for floor applications
- Extended open time
- Mixes to a smooth, creamy consistency for superior handling
- Superior transfer - full coverage with minimum effort
- Interior/exterior use
- Exceeds ANSI A118.4TE and A118.11 specifications
- Zero VOC
- Contains recycled materials*
- Interior/exterior use
- Mixes to a smooth, creamy consistency for superior handling
- Superior transfer - full coverage with minimum effort
- Interior/exterior use
- Exceeds ANSI A118.4TE and A118.11 specifications
- Zero VOC
- Contains recycled materials*

* Gray formula contains 5% pre-consumer recycled material. White formula contains 5% post-consumer recycled material.

Packaging

40 lb. (18.14 kg) moisture-resistant bags

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 40 lbs. (18.14 kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot; x 1/4&quot; (6 x 4.7 mm) V-notch trowel</td>
<td>182-204 sq. ft.</td>
</tr>
<tr>
<td>3/8&quot; x 3/8&quot; x 3/8&quot; (6 x 6 x 6 mm) square-notch trowel</td>
<td>91-102 sq. ft.</td>
</tr>
<tr>
<td>3/8&quot; x 3/8&quot; x 3/8&quot; (6 x 6 x 6 mm) square-notch trowel</td>
<td>75-85 sq. ft.</td>
</tr>
<tr>
<td>3/8&quot; x 3/8&quot; x 3/8&quot; (6 x 6 x 6 mm) square-notch trowel</td>
<td>60-68 sq. ft.</td>
</tr>
<tr>
<td>1/2&quot; x 1/2&quot; x 1/2&quot; (12 x 12 x 12 mm) square-notch trowel</td>
<td>45-51 sq. ft.</td>
</tr>
<tr>
<td>3/4&quot; x 3/4&quot; x 3/4&quot; (19 x 14 x 9 mm) rounded-notch trowel</td>
<td>30-34 sq. ft.</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, 1/4" (28 mm) total minimum thickness for joists 16" (40 cm) o.c., interior floors only].
- Gypsum wallboard (dry interior wall areas only)
- Water resistant gypsum wallboard (i.e.: greenboard, interior walls only, dry to intermittent water exposure only)
- Cementitious backer units (CBU) or glass mat backerboard
- 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 sheetgoods provided such surfaces are single layered, well-bonded to an approved substrate and properly prepared.
- Adhesive residue (except tacky or pressure-sensitive adhesive). Mechanically remove the adhesive to expose at least 80% of the concrete surface. Random specks of adhesive and the appearance of a brown surface stain are acceptable.

Substrate Preparation

All substrates must be dry, structurally sound with maximum deflection per industry standards of 1/400 for ceramic tile installations and 1/300 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 used, removed or handled in any way. Do not disturbing. Any substrate containing asbestos must be handled in accordance with existing EPA regulations. Contact your local再到 EPA office.

Maximum variations in all substrates must not exceed 1/4" in 10 ft. (6 mm in 3 m) and 1/360 in 1 ft. (1.6 mm in 0.3 m) from the required plane for tile less than 15" (381 mm) on all sides. Maximum variations in all substrates must not exceed 3/16" in 1 ft. (3 mm in 3 m) and 1/360 in 2 ft. (1.6 mm in 0.6 m) from the required plane for tile 15" (381 mm) or greater on any one side. For large non-level, interior surfaces use TEC® EZ Level® Premium Self Leveling Underlayment. For exterior surfaces or smaller areas of rough uneven substrates, use a scratch coat of TEC® Ultimate Large Tile Mortar up to 1/4" (6 mm) thick. Allow to cure to walkable hardness before applying mortar bond coat.

Storage

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

Shelf Life

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

Limitations

- Not for installing green marble or other moisture-sensitive stone tile; use TEC® AccuColor EFX® Epoxy Grout and Mortar.
- For resin-backed marble see the TEC® Technical Bulletin “Installation Of Resin Backed Stone Tiles” at tecspecialty.com.
- For non-green marble tile applications, use white TEC® Ultimate Large Tile Mortar.
- Not for use over rubber, strip wood floors, oriented strand board, particle board, lauan plywood.
**Residential to Extra Heavy Commercial**

- For CDX plywood, use TEC® Super Flex™ mortar or TEC® XtraFlex™ acrylic mortar additive with TEC® Full Set®+ thin set mortar.
- Do not apply over single layer wood floors.
- Temperature of area to be tiled must remain above 50°F (10°C) for 72 hours.
- 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.

**Applicable Standard**

Exceeds ANSI A118.4E and A118.11 specifications

ISO 13007: Classification C1TEP1

**4. TECHNICAL DATA**

**Physical Properties**

<table>
<thead>
<tr>
<th>Description</th>
<th><strong>A118.11</strong></th>
<th><strong>A118.4</strong></th>
<th><strong>A118.4E</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical State</strong></td>
<td>Dry powder</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>Available in white and gray</td>
<td></td>
<td></td>
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<tr>
<td><strong>Pot Life</strong></td>
<td>3 to 4 hours</td>
<td></td>
<td></td>
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<tr>
<td><strong>Initial Cure [at 72°F (22°C)]</strong></td>
<td>16 to 24 hours</td>
<td></td>
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<tr>
<td><strong>Final Cure</strong></td>
<td>21 days</td>
<td></td>
<td></td>
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<tr>
<td><strong>Foot Traffic Rating (ASTM C627)</strong></td>
<td>Residential to Extra Heavy Commercial (depending on substrate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Storage</strong></td>
<td>Store in cool, dry location. Do not store in open containers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Shelf Life</strong></td>
<td>Maximum 1 year from date of manufacture in properly stored, unopened package.</td>
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</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. In a clean mixing container, add TEC® Ultimate Large Tile Mortar to clean, cool water as specified in the chart.

<table>
<thead>
<tr>
<th>Application</th>
<th>Water</th>
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<tbody>
<tr>
<td>LHT or Wall Applications</td>
<td>6 to 6½ quarts (5.6 to 6.1 L)</td>
</tr>
<tr>
<td>Thin Set Floor Applications</td>
<td>6½ to 6¾ quarts (6.1 to 6.4 L)</td>
</tr>
</tbody>
</table>

Add clean, cool water to a clean mixing container. Add ½ bag of TEC® Ultimate Large Tile Mortar and mix until all powder is consumed. Add final ½ bag and mix until powder is consumed. Be cautious not to over-water. Consistency will loosen during mixing process. Mix material for two (2) minutes to a smooth and 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. Irregularities in substrate may require “back-buttering” of large tiles to achieve complete coverage and firm support. Periodically remove and check a tile to assure proper coverage. Keep a minimum of ½ 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: 800-832-9012
Website: tecspecialty.com

**7. WARRANTY**

For warranty details, see your sales associate or visit tecspecialty.com.

**8. MAINTENANCE**

Not applicable

**9. TECHNICAL SERVICES**

**Technical assistance**

Information is available by calling the Technical Support Hotline.
Toll Free: 800-832-9023
Fax: 630-952-1235

**Technical and safety literature**

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

**10. FILING SYSTEM**

Division 9