DESCRIPTION

Large Floor Tile Mortar is a regular-setting, polymer-enriched (“modified”) mortar ideal for installing large-format tile on floors. This large-and-heavy-tile-mortar (formerly known as “medium-bed mortar”) is designed to bond and support large tile over a diverse range of floor substrates.

FEATURES AND BENEFITS

• Multipurpose: Ideal for floor tile 15” x 15” (38 x 38 cm) and larger, and can also be used to install small-format tile
• Nonslump formula for large-format, heavy tile and stone in floor applications
• For thicker bond coats from 3/32” to 1/2” (2.5 to 12 mm)
• Unique formulation allows easier installation of large floor tile.
• Mix with water only.

INDUSTRY STANDARDS AND APPROVALS

• ANSI: Exceeds ANSI A118.4E and ANSI A118.11 bond-strength requirements

LEED v4 Points Contribution | LEED Points
--- | ---
Health Product Declaration (HPD)* | Up to 2 points
Environmental Product Declaration (EPD): TCNA Industry Average for Mortars* | 1/2 point

* Using this product may help contribute to LEED certification of projects in the categories shown above. Points are awarded based on contributions of all project materials.

WHERE TO USE

• Most interior and exterior residential and commercial installations on floors

LIMITATIONS

• Install Large Floor Tile Mortar only at temperatures between 40°F and 95°F (4°C and 35°C).
• Do not use for moisture-sensitive stone (green marble, some limestone and some granite), agglomerate tiles or resin-backed tiles. Instead, use suitable epoxy or urethane adhesives. See the respective Technical Data Sheet (TDS) for details.
• Do not use over wood planking, presswood, particleboard, chipboard, oriented strand board (OSB), treated plywood, Masonite, Lauan, laminate, fiberglass, poured epoxy floors, self-stick tile, noncushioned sheet vinyl, metal or similar dimensionally unstable substrates. See the “Suitable Substrates” section below.
• To use directly over gypsum-based patching or leveling substrates, apply a suitable primer/sealer before use. See MAPEI’s technical bulletin “Gypsum-Based Floors and Walls: Which MAPEI Products Can Be Applied?” in the Related Documents section of the Tile & Stone Installation Systems page on MAPEI’s Website.
• Installations of tile over nonporous surfaces, such as waterproofing membranes and existing tile, may require extended setting/curing times.
• For light-colored and translucent natural stone, a white mortar is recommended.
• Do not use Large Floor Tile Mortar for installations subject to water immersion.
• For areas subject to severe freeze/thaw conditions, mixing with MAPEI polymer-modified additive is recommended.

**SUITABLE TILE OR STONE**

• For porcelain, ceramic, quarry and Saltillo tile; cultured stone; pavers; and most types of marble, granite and natural stone

**SUITABLE SUBSTRATES**

• Concrete (cured for at least 28 days)
• Masonry cement block, brick, cement mortar beds and leveling coats
• Cement backer units (CBUs) – see manufacturer’s installation guidelines
• Gypsum wallboard (properly primed)
• APA Group 1 and CANPLY 0121 exterior-grade plywood (interior, residential and light commercial floor and countertops in dry conditions only)
• MAPEI waterproofing, crack-isolation and sound-reduction membranes

Consult MAPEI’s Technical Services Department for installation recommendations regarding substrates or conditions not listed.

**SURFACE PREPARATION**

• All substrates should be structurally sound, stable, dry, clean, and free of any substance or condition that may reduce or prevent proper adhesion.

See MAPEI’s “Surface Preparation Requirements” reference guide in the Related Documents section of the Tile & Stone Installation Systems page on MAPEI’s Website.

**MIXING**

Choose all appropriate safety equipment before use. Refer to the Safety Data Sheet for details.

1. Into a clean mixing container, pour about 6.5 to 7.5 U.S. qts. (6,15 to 7,10 L) of clean, potable water. For use with floor membranes, up to 0.5 U.S. qt. (0,47 L) of extra water can be added in mixing.
2. Gradually add 50 lbs. (22,7 kg) of powder while slowly mixing.
3. Use a low-speed mixing drill (at about 300 rpm), with an angled cross-blade mixer or double-box mixer.
   Mix thoroughly until the mixture becomes a smooth, homogenous, lump-free paste. Avoid prolonged mixing.
4. Let the mixture stand (“slake”) for 5 minutes.
5. Remix for 1 minute.
6. If the mixture becomes heavy or stiff, remix without adding more water.

**PRODUCT APPLICATION**

Read all installation instructions thoroughly before installation.

1. Choose a notched trowel (see the “Approximate Coverage” chart below) with sufficient depth to achieve more than 80% mortar contact to both the tile and substrate for all interior applications, and more than 95% for exterior installations, commercial floor and wet applications. It may be necessary to back-butter the tile in order to meet these requirements. (Refer to ANSI A108.5 specifications and TCNA Handbook guidelines.)
2. With pressure, apply a coat by using the trowel’s flat side to key mortar into the substrate.
3. Apply additional mortar, combing it in a single direction with the trowel’s notched side.
4. Spread only as much mortar as can be tiled before the product skins over. Open time can vary with jobsite conditions.
5. Place the tiles firmly into the wet mortar. Push the tiles back and forth in a direction perpendicular to trowel lines, to collapse the mortar ridges and to help achieve maximum coverage. Ensure proper contact between the mortar, tile and substrate by periodically lifting a few tiles to check for acceptable coverage.
6. Remove excess mortar from the joint areas so that at least 2/3 of the tile depth is available for grouting (see ANSI A108.10 guidelines).

**EXPANSION AND CONTROL JOINTS**

• Provide for expansion and control joints as specified per TCNA Method EJ171.
• Do not cover any expansion joints with mortar.

**CLEANUP**

• Clean tools and tile while the mortar is fresh using only water.

**PROTECTION**

• For 24 to 48 hours, do not disturb the installation, allow light traffic or grout tiles.
• Protect the installation from general traffic for at least 72 hours, and from heavy traffic for at least 7 days.
• Protect the installation from rain for 72 hours, and from freezing for 21 days.
### ANSI Specification

<table>
<thead>
<tr>
<th>Test Method</th>
<th>Specification Standard</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSI A118.4E – extended open time</td>
<td>≥ 72.5 psi (0.5 MPa) at 30 minutes</td>
<td>Pass</td>
</tr>
<tr>
<td>ANSI A118.4 – shear strength, impervious ceramic (porcelain) mosaics</td>
<td>&gt; 200 psi (1.38 MPa) at 28 days</td>
<td>225 to 350 psi (1.55 to 2.41 MPa)</td>
</tr>
<tr>
<td>ANSI A118.4 – shear strength, glazed wall tile</td>
<td>&gt; 300 psi (2.07 MPa) at 7 days</td>
<td>400 to 550 psi (2.76 to 3.79 MPa)</td>
</tr>
<tr>
<td>ANSI A118.4 – shear strength, quarry tile to quarry tile</td>
<td>&gt; 150 psi (1.03 MPa) at 28 days</td>
<td>300 to 425 psi (2.07 to 2.93 MPa)</td>
</tr>
<tr>
<td>ANSI A118.11 – shear strength, quarry tile to plywood</td>
<td>&gt; 150 psi (1.03 MPa) at 28 days</td>
<td>150 to 175 psi (1.03 to 1.21 MPa)</td>
</tr>
</tbody>
</table>

### Shelf Life and Application Properties* at 73°F (23°C) and 50% relative humidity

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shelf life</td>
<td>1 year when stored in original, unopened packaging</td>
</tr>
<tr>
<td>Open time*</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Pot life*</td>
<td>&gt; 2 hours</td>
</tr>
<tr>
<td>Time before grouting*</td>
<td>24 to 48 hours</td>
</tr>
<tr>
<td>VOCs (Rule #1168 of California's SCAQMD)</td>
<td>0 g per L</td>
</tr>
</tbody>
</table>

*Open time, pot life and time before grouting vary based on jobsite conditions.

### Packaging

**Size and Color**

Bag: 50 lbs. (22.7 kg), white

### Approximate Coverage** per 50 lbs. (22.7 kg)

<table>
<thead>
<tr>
<th>Typical Trowel</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot; x 1/4&quot; x 1/4&quot; (6 x 6 x 6 mm)</td>
<td>75 to 90 sq. ft. (6.97 to 8.36 m²)</td>
</tr>
<tr>
<td>1/4&quot; x 3/8&quot; x 1/4&quot; (6 x 10 x 6 mm)</td>
<td>55 to 65 sq. ft. (5.11 to 6.04 m²)</td>
</tr>
<tr>
<td>1/2&quot; x 1/2&quot; x 1/2&quot; (12 x 12 x 12 mm)</td>
<td>38 to 45 sq. ft. (3.53 to 4.18 m²)</td>
</tr>
<tr>
<td>3/4&quot; x 9/16&quot; x 3/8&quot; (19 x 14 x 10 mm)</td>
<td>25 to 30 sq. ft. (2.32 to 2.79 m²)</td>
</tr>
</tbody>
</table>

**Trowel dimensions are width/depth/space. Actual coverage will vary according to substrate profile and tile type.**
We proudly support the following industry organizations:

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Edition Date: May 2, 2018
PR: 6389 MKT: 17-2428

For the most current BEST-BACKED™ product data and warranty information, visit www.mapei.com.

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