PRODUCT DESCRIPTION

NA 3250 Multi Flex Rapid 2 is a fast-setting thin-set mortar for interior and exterior installations of tile and most stones. Tiles can be grouted in as little as 3 to 4 hours after installation. The smooth and creamy consistency of this mortar makes it easy to apply. NA 3250 Multi Flex Rapid 2 meets or exceeds ANSI A118.4F, ANSI A118.4T and ANSI A118.11 requirements, and is ISO 13007 certified C2FT for fast-setting mortars when mixed with water.

USES

• For setting most ceramic, ceramic mosaics, porcelain, quarry, paver and Saltillo tiles, and many types of marble, granite and natural stone
• For residential indoor and outdoor floor, wall and countertop installations
• For commercial indoor floor and wall, and outdoor floor installations
• Higher polymer content allows tile over existing tile installations.

SUBSTRATE REQUIREMENTS

Substrates must be in accordance with ANSI A108.5 current standards and recommendations. All supporting surfaces must be structurally sound. The surface area that will receive tile must be dry, clean and free of dust, oil, grease, tar, paint, wax, curing agents, primers, sealers, release agents, existing adhesives and any other substance that may prevent, reduce or affect adhesion or performance of the tile-setting system. If the surface contains these substances, they must be mechanically removed.

The owner should communicate in writing to the project design professional and general contractor the intended uses of the tile installation, including in-service loads or information to allow a project design professional to calculate such.

The tile contractor shall not be responsible for problems resulting from any structural subfloor installation not compliant with applicable building codes, unless structural subfloor was designed and installed by tile contractor, nor for problems form overloading. Please reference the most current version of the TCNA Handbook for more complete substrate requirements.

Consult Technical Services for installation recommendations regarding substrates and conditions not listed.

SUITABLE SUBSTRATES (properly prepared)

• Fully cured concrete (cured at least 28 days)
• Cement backer units – see manufacturer’s installation guidelines
• Cement mortar beds and leveling coats
• Masonry block and brick
• Gypsum wallboard, properly primed (interior walls in dry areas only)
• APA and CANPLY Group 1 exterior-grade plywood (interior, residential and light commercial in dry conditions only)
• North American Adhesives (NAA) waterproofing, crack-isolation and sound-reduction membranes over recommended substrates
• Properly prepared vinyl composition tile (VCT), plastic laminate countertops and old, dry cutback adhesive residue (interior only)
• Properly prepared existing ceramic and porcelain tile, cement terrazzo, quarry tile and pavers (interior only)

LIMITATIONS

• Install only at temperatures between 40°F and 95°F (4°C and 35°C).
• Not recommended for:
  – Application over presswood, particleboard, chipboard, oriented strand board (OSB), hardwood flooring, Masonite, Lauan, substrates containing asbestos, metal or dimensionally unstable materials.
  – Setting moisture-sensitive stone (green marble, some limestones and granites), agglomerate tiles or resin-backed tiles. Instead, use a suitable epoxy or urethane adhesive.
  – Use on exterior commercial building facades, such as shopping malls, office buildings, high-rise residential units, etc.
  – Use in areas of prolonged water immersion (swimming pools, spas, steam rooms, gang showers, hot tubs and fountains).
• To use directly over gypsum-based patching or leveling substrates, apply a suitable primer before use.
• Do not spread more material than can be tiled over before ridges skin over.
• For light-colored and translucent natural stone, a white mortar is recommended.
• The product has about 30 minutes of working time after mixing.
• For areas subject to severe freeze/thaw conditions, mix NA 3000 Mortar Additive with an appropriate thin-set mortar.

MIXING

Consult the Safety Data Sheet for safe-handling instructions.

1. Depending on the application, you may choose to use one of the following water ratio options when mixing:
   • Option A: For nonslump floor applications and for nonsag vertical applications, pour about 6.3 to 7.4 U.S. qts. (5.96 to 7.0 L) of clean potable water in a clean mixing container.
   • Option B: For use with membranes, pour about 7.4 to 8 U.S. qts. (7.0 to 7.57 L) of clean potable water in a clean mixing container.
2. 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.
3. Do not let mixture stand (“slake”). Instead, spread immediately.
4. If mixture becomes heavy or stiff, remix without adding more liquid or powder.

APPLICATION

1. Choose a typical notched trowel (see the “Approximate Coverage” chart) 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).

GROUTING

• Wait 3 to 4 hours before grouting with an appropriate NAA grout.

MOVEMENT JOINTS

• Provide for movement joints where specified. Refer to the most current TCNA handbook for ceramic tile installation, Detail EJ-171, or TTMAC Specifications Guide 09 30 00, Detail 301MJ.
• When necessary, cut tiles along both edges of the expansion joints. Do not allow tile and mortar to overlap the joints.
• Protect tilework with metal strips (edge metal) along both edges of structural building expansion joints.
• Install the specified compressible backer rod and sealant into all expansion and control joints.

CLEANUP

• Clean tools, tile and other surfaces with water while mortar is fresh.

PROTECTION

• Provide for dry, heated storage on site and deliver materials at least 24 hours before tilework begins.
• Protect from foot traffic for 6 hours. Protect from heavy traffic for 24 hours. Protect from frost and rain for 7 days.
• Because temperature and humidity (during and after the installation of
(tile) affect the final curing time, allow for extended periods of cure and protection when temperatures drop below 60°F (16°C) and/or when the relative humidity is higher than 70%.

### Product Characteristics

**at 73°F (23°C) and 50% relative humidity**

<table>
<thead>
<tr>
<th>Color</th>
<th>Gray</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packaging</td>
<td>Bag: 50 lbs. (22.7 kg)</td>
</tr>
<tr>
<td>VOCs (Rule #1168 of California’s SCAQMD)</td>
<td>0 g per L</td>
</tr>
<tr>
<td>Shelf life</td>
<td>1 year</td>
</tr>
<tr>
<td>Open time*</td>
<td>10 to 20 minutes</td>
</tr>
<tr>
<td>Pot life*</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Time before grouting*</td>
<td>3 to 4 hours</td>
</tr>
<tr>
<td>Cleanup</td>
<td>With clean water while fresh</td>
</tr>
</tbody>
</table>

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

### ISO 13007 Classification

<table>
<thead>
<tr>
<th>Classification Code</th>
<th>Classification Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>C2 (cementitious, improved adhesion)</td>
<td>$\geq 145$ psi (1 MPa) after standard aging, heat aging, water immersion and freeze/thaw cycles</td>
</tr>
<tr>
<td>F (fast-setting)</td>
<td>$\geq 72.5$ psi (0.5 MPa) after 6 hours</td>
</tr>
<tr>
<td>T (vertical slip resistance)</td>
<td>$\leq 0.02^\circ$ (0.5 mm) after 6 hours</td>
</tr>
</tbody>
</table>

### ANSI Specification

<table>
<thead>
<tr>
<th>Test Method</th>
<th>Specification Standard</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<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 200 psi (1.03 to 1.38 MPa)</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>350 to 450 psi (2.41 to 3.10 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 500 psi (2.76 to 3.45 MPa)</td>
</tr>
</tbody>
</table>

### Approximate Coverage**

<table>
<thead>
<tr>
<th>Typical Trowel</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4” x 1/4” x 1/4” (6 x 6 x 6 mm)</td>
<td>93 to 103 sq. ft. (8.64 to 9.57 m²)</td>
</tr>
<tr>
<td>1/4” x 3/8” x 1/4” (6 x 10 x 6 mm)</td>
<td>70 to 82 sq. ft. (6.50 to 7.62 m²)</td>
</tr>
<tr>
<td>1/2” x 1/2” x 1/2” (12 x 12 x 12 mm)</td>
<td>43 to 55 sq. ft. (3.99 to 5.11 m²)</td>
</tr>
<tr>
<td>3/4” x 9/16” x 3/8” (19 x 14 x 10 mm)</td>
<td>38 to 44 sq. ft. (3.53 to 4.09 m²)</td>
</tr>
</tbody>
</table>

**Trowel dimensions are width/depth/space. Actual coverage will vary according to substrate profile and tile type.

### Industry Standards and Approvals

<table>
<thead>
<tr>
<th>LEED v4 Points Contribution</th>
<th>LEED Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Product Declaration (EPD): Tile Council of North America (TCNA) Industry Average EPD for Mortars***</td>
<td>1/2 point</td>
</tr>
<tr>
<td>Health Product Declaration (HPD)***</td>
<td>Up to 2 points</td>
</tr>
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</table>

### Additional Green Certifications

- Living Building Challenge (LBC) Red List Free: This product has been verified per the most current Red List on LBC’s Website.

***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.
NA 3250
Multi Flex™ Rapid 2

Statement of Responsibility
Before using, user shall determine the suitability of the product for its intended use and user alone assumes all risks and liability whatsoever in connection therewith. ANY CLAIM SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING TO US WITHIN FIFTEEN (15) DAYS FROM DATE IT WAS, OR REASONABLY SHOULD HAVE BEEN, DISCOVERED.

PR: 8360 MKT: 17-1313