



North American
ADHESIVES®

NA 3250

Multi Flex™ Rapid 2

**Fast-Setting, Versatile, Thin-Set Mortar
with Polymer**



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.

Tile Council of North America (TCNA) Maximum Allowable Deflection for Floor Systems and Substrates

Floor systems, whether wood framed or concrete, over which the tile will be installed using the appropriate TCNA method, according to the Floor Tiling Installation Guide, shall be in conformance with the International Residential Code (IRC) for residential applications, the International Building Code (IBC) for commercial applications, or applicable building codes.

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 from 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)

See NAA's "Surface Preparation Requirements" document at www.na-adhesives.com.

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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



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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	
Color	Gray
Packaging	Bag: 50 lbs. (22,7 kg)
VOCs (Rule #1168 of California's SCAQMD)	0 g per L
Shelf life	1 year
Open time*	10 to 20 minutes
Pot life*	30 minutes
Time before grouting*	3 to 4 hours
Cleanup	With clean water while fresh

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

ISO 13007 Classification	
Classification Code	Classification Requirement
C2 (cementitious, improved adhesion)	≥ 145 psi (1 MPa) after standard aging, heat aging, water immersion and freeze/thaw cycles
F (fast-setting)	≥ 72.5 psi (0,5 MPa) after 6 hours
T (vertical slip resistance)	≤ 0.02" (0,5 mm)

ANSI Specification		
Test Method	Specification Standard	Test Results
ANSI A118.11 – shear strength, quarry tile to plywood	> 150 psi (1,03 MPa) at 28 days	150 to 200 psi (1,03 to 1,38 MPa)
ANSI A118.4 – shear strength, impervious ceramic (porcelain) mosaics	> 200 psi (1,38 MPa) at 28 days	350 to 450 psi (2,41 to 3,10 MPa)
ANSI A118.4 – shear strength, glazed wall tile	> 300 psi (2,07 MPa) at 7 days	400 to 500 psi (2,76 to 3,45 MPa)

ANSI A118.4F – shear strength, impervious ceramic (porcelain) mosaics	> 50 psi (0,34 MPa) at 4 hours	Pass
ANSI A118.4T – vertical slip resistance	≤ 0.02" (0,5 mm)	Pass

Approximate Coverage** per 50 lbs. (22,7 kg)	
Typical Trowel	Coverage
1/4" x 1/4" x 1/4" (6 x 6 x 6 mm)	93 to 103 sq. ft. (8,64 to 9,57 m²)
1/4" x 3/8" x 1/4" (6 x 10 x 6 mm)	70 to 82 sq. ft. (6,50 to 7,62 m²)
1/2" x 1/2" x 1/2" (12 x 12 x 12 mm)	43 to 55 sq. ft. (3,99 to 5,11 m²)
3/4" x 9/16" x 3/8" (19 x 14 x 10 mm)	38 to 44 sq. ft. (3,53 to 4,09 m²)

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

Industry Standards and Approvals	
LEED v4 Points Contribution	LEED Points
Environmental Product Declaration (EPD): Tile Council of North America (TCNA) Industry Average EPD for Mortars***	1/2 point
Health Product Declaration (HPD)***	Up to 2 points
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.

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MAPEI® Corporation
1144 East Newport Center Drive
Deerfield Beach, FL 33442

U.S. and Puerto Rico

Customer Service: 1-800-747-2722
Technical Services: 1-800-637-7753

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Canada

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Refer to the Safety Data Sheet for specific data related to health and safety as well as product handling. For the most current product data and warranty information, visit www.na-adhesives.com.



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.

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