

# NA 3150



## North American ADHESIVES®



### Economy-Grade Tile Mortar

GOOD	BETTER	BEST
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#### PRODUCT DESCRIPTION

NA 3150 is a single-component, thin-set mortar that is mixed only with water. This mortar is formulated with a unique dry polymer, resulting in good adhesion to substrates and tile.

#### INDUSTRY STANDARDS AND APPROVALS

ISO 13007: Classification C2

ANSI: Meets A118.4 requirements when mixed with water.

<u>LEED Points Contribution</u>	<u>LEED Points</u>
MR Credit 5, Regional Materials* .....	Up to 2 points
IEQ Credit 4.1, Low-Emitting Materials – Adhesives & Sealants.....	1 point
IEQ Credit 4.3, Low-Emitting Materials – Flooring Systems .....	1 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.

#### USES

- For installing dimensional stone, ceramic, porcelain, quarry tile and pavers over most traditional, properly prepared substrates
- For most residential installations on indoor floors, walls and countertops, and outdoor floors and walls
- For most commercial installations on indoor floors, walls and countertops, and outdoor floors
- For use in tub surrounds and showers
- Use white NA 3150 to install light-colored and translucent marble, and their agglomerates (see "Limitations").

#### SUBSTRATE REQUIREMENTS

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 can weaken the adhesive's bond to the substrate. If the surface contains these substances, they must be mechanically removed. See NAA "Surface Preparation Requirements" document for tile and stone installation systems at na-adhesives.com.

#### SUITABLE SUBSTRATES (properly prepared)

- Fully cured concrete (at least 28 days old)
- Masonry block and brick
- Cement backer units (CBUs) – (see manufacturer installation guidelines)
- Cement mortars and indoor leveling coats
- Gypsum plaster or wallboard – indoor walls only (primed with NA 310 or gypsum wallboard primer).

#### TECHNICAL QUICK REFERENCE

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

Pot life	About 2 hours
Open time	20 minutes
Time before grouting	24 hours
Final cure	28 days
VOCs (Rule #1168 of California SCAQMD)	0 g/L
Shelf life	1 year when stored in a dry area. Protect from moisture.
Colors	Gray; white
Cleanup	With water while fresh
Packaging	Bag: 50 lbs. (22,7 kg)

Shear strength per ANSI A118.4 tests (at 28 days)

Shear strength of impervious ceramic (porcelain) mosaics.....	> 200 psi (1,38 MPa)
Shear strength of glazed wall tile.....	> 300 psi (2,07 MPa)
Shear strength of quarry tile to quarry tile .....	> 150 psi (1,03 MPa)

#### TYPICAL TROWELS AND APPROXIMATE COVERAGES\*

1/4" x 1/4" x 1/4" ..... 75 to 90 sq. ft.  
(6 x 6 x 6 mm) ..... (6,97 to 8,36 m<sup>2</sup>)

1/4" x 3/8" x 1/4" ..... 55 to 65 sq. ft.  
(6 x 10 x 6 mm) ..... (5,11 to 6,04 m<sup>2</sup>)



\* Trowel dimensions are width/depth/space. Coverages are for estimating purposes only. Actual coverage may vary according to substrate conditions, trowel used and setting practices. To ensure appropriate contact, proper trowel selection is mandatory (see "Application").

#### HEALTH AND SAFETY

Consult the Material Safety Data Sheet (MSDS) for safe-handling instructions.

#### Tile Council of North America (TCNA) Statement on Deflection Criteria

Floor systems, including the framing system and subfloor panels, over which tile will be installed should be in conformance with the IRC [International Residential Code] for residential applications, the IBC [International Building Code] for commercial applications, or applicable building codes.

Note: The owner should communicate in writing to the project design professional and general contractor the "intended use" of the tile installation, in order to enable the project design professional and general contractor to make necessary allowances for the expected live load, concentrated loads, impact loads, and dead loads including the weight of the tile and setting bed. The tile installer shall not be responsible for any floor framing or subfloor installation not compliant with applicable building codes, unless the tile installer or tile contractor designs and installs the floor framing or subfloor.

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

## LIMITATIONS

- Do not apply over substrates containing asbestos.
- Do not apply over presswood, particleboard, chipboard, oriented strand board (OSB), Masonite, Luaun, gypsum floor-patching, gypsum leveling compounds, laminate surfaces, vinyl composition tile (VCT), vinyl asbestos tile (VAT), cutback adhesive residue, noncushioned sheet vinyl, metal or similar dimensionally unstable substrates.
- Do not use for installations subject to freeze/thaw or submerged conditions, such as pools, spas, fountains or in gang showers. Instead, use NA 3100 or NA 3120 with undiluted NA 3000 additive.
- Do not use on commercial outdoor building facades (such as shopping malls, high-rise residential buildings and office buildings).
- Do not use for setting moisture-sensitive tile, natural stone or their agglomerates. Instead, contact Technical Services for recommendations.

Note: Marble, granite and slate are products of nature made from a vast combination of minerals and chemicals that may cause the material to behave or react in a manner beyond our control. Likewise, we do not have control over any of the materials and processes used in the manufacturing of agglomerates. Therefore, determine the suitability of all the materials before proceeding with the installation.

## MIXING

1. Before starting, take appropriate safety precautions. For details, see MSDS for NA 3150.
2. Into a clean mixing container, pour 5 to 5.5 U.S. qts. (4,73 to 5,20 L) of cool, potable water. Gradually add a 50-lb. (22,7-kg) bag of NA 3150 powder while slowly mixing with a low-speed mixer (at about 300 rpm).
3. Avoid prolonged mixing, which will entrap air and shorten the pot life.
4. Mix thoroughly to a homogenous and smooth consistency.
5. After mixing, let stand ("slake") for 10 minutes.
6. Remix without adding any more liquid or powder.
7. Some stiffening may occur before all material is used (about 1 to 2 hours). If so, remix by hand or machine. Do not add any more liquid or powder.
8. Wash hands and tools with water immediately after mixing.

## APPLICATION

1. Use only at temperatures between 40°F and 95°F (4°C and 35°C).
2. Choose a notched trowel (see chart) with sufficient depth to achieve > 80% mortar contact to both the tile and substrate for all interior applications, and > 95% for exterior installations, commercial floor and wet applications. It may be necessary to back-butter in order to reach these requirements. (Refer to ANSI A108.5 specifications and Tile Council of America Handbook guidelines.)
3. Using the trowel's flat edge, spread a thin pressure-applied coat on the substrate. Then using the trowel's notched side, follow immediately with additional material, combing in a single direction to achieve an even-setting bed. Do not spread more material than can be covered with tiles before material begins to skin over.
4. In hot or dry conditions, take precautions to ensure that the mortar does not flash-set. Cooling a concrete slab with water before the installation may be beneficial. Remove all excess water before applying the mortar. Also, using cold water will aid in the installation.
5. Do not spread more mortar than can be covered before the mortar begins to skin over ("set up"). To test for skinning, simply place a finger into the ridges of the applied mortar. If there is no transfer of mortar to the finger, skinning has occurred; scrape off and replace with fresh mortar.
6. Set tiles firmly over the fresh mortar with a slight push/pull motion across the direction of the mortar ridges to achieve good tile-to-mortar contact.
7. Follow immediately with proper and thorough beat-in to flatten ridges or notches into a continuous bed, allowing at least 25% of the thickness of each tile to be embedded in the mortar. Ensure proper contact between

mortar, tile and substrate by periodically lifting a few tiles to check for acceptable coverage.

8. Make all alignments and adjustments within 20 minutes following the beat-in procedure.
9. Clean all joints and wipe smudges from the tile face with a damp towel or sponge before mortar hardens.
10. Do not disturb, grout or walk over tiles for at least 24 hours after installation.
11. Wash hands and tools with water while the material is still fresh.

## EXPANSION AND CONTROL JOINTS

1. Provide for expansion and control joints within the tilework where specified or where necessary. Refer to the TCA Handbook, Detail EJ-171.
2. Do not cover any expansion joints with mortar.
3. Cut tiles on both sides along the edges of expansion joints or control joints.
4. Protect tilework with metal strips along both edges of structural building expansion joints.
5. Install the specified compressible bead and sealant in all expansion and control joints.

## GROUTING

Allow tiles to reach a firm set (typically 24 hours) before grouting with an appropriate North American Adhesives grout.

## PROTECTION

- Provide for dry storage on site and deliver materials at least 24 hours before tilework begins.
- Protect tilework from adverse weather for at least 7 days after installation.
- Floors: Protect from general traffic for at least 24 hours after installation and from heavy traffic for 7 days.
- Walls: Protect from impact, vibrations and heavy hammering on adjacent and opposite walls for at least 14 days after the installation.
- 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%.

## IMPORTANT NOTICE

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.**

For the most current product data, visit [www.na-adhesives.com](http://www.na-adhesives.com).



**North American**  
**ADHESIVES®**

MAPEI® Corporation  
1144 East Newport Center Drive  
Deerfield Beach, FL 33442  
Customer Service: 1-800-747-2722  
Technical Services: 1-800-637-7753  
[www.na-adhesives.com](http://www.na-adhesives.com)

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