



North American
ADHESIVES®

NA 3200

Multi Flex™ Pro

Multipurpose Ceramic Tile Mortar



PRODUCT DESCRIPTION

NA 3200 Multi Flex Pro is a standard-grade, polymer-modified, thin-set mortar for most interior/exterior residential and commercial floors; interior/exterior residential walls; and interior commercial walls. NA 3200 Multi Flex Pro provides an excellent bond for ceramic, porcelain, pavers and most marble, granite and natural-stone tile installations.

USES

- For setting most ceramic, ceramic mosaics, porcelain, quarry, paver and Saltillo tiles, as well as most types of slate, marble and granite tiles
- For residential indoor and outdoor floor and wall installations
- For indoor countertop installations over properly prepared surfaces
- For commercial indoor floor and wall, and outdoor floor installations
- For use in tub surrounds and showers

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 can weaken the adhesive's bond to the substrate. If the surface contains these substances, they must be mechanically removed.

Title Council of North America (TCNA) Statement on Deflection Criteria

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.

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SUITABLE SUBSTRATES

- Fully cured concrete (cured for at least 28 days)
- Cement backer units – see manufacturer's installation guidelines
- Cement mortar beds and leveling coats
- Masonry block and brick
- Gypsum wallboard and plaster – interior walls in dry areas only (priming may be required)
- Plywood underlayment must be a Group 1 exterior-grade plywood CC-plugged or better, conforming to APA classification and U.S. Product Standard PS 1-95 or a "SELECT" or (SEL-TF) CANPLY classified exterior-grade plywood conforming to CSA-0121 standard for Douglas fir for direct-bond applications (interior, residential and light commercial floors and countertops in dry conditions only).
- North American Adhesives (NAA) waterproofing, crack-isolation and sound-reduction membranes over recommended substrates

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



NA 3200

Multi Flex™ Pro

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, Luan, plastic laminate surfaces, vinyl composition tile (VCT), substrates containing asbestos, cutback adhesive residue, metal or dimensionally unstable materials
 - Setting glass tile or 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, fountains)
 - Areas subject to severe freeze/thaw conditions. For best performance, mix *NA 3120 Dual Set™* with *NA 3000 Mortar Additive*.
- To use directly over gypsum-based patching or leveling substrates, apply a suitable sealer 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.
- Product has about 2 hours of working time after mixing.
- Installations of tile over nonporous surfaces, such as waterproofing membranes, may require extended setting/curing times.

MIXING

Before product use, take appropriate safety precautions. Consult the Safety Data Sheet for safe-handling instructions.

1. Into a clean mixing container, pour about 5 to 6 U.S. qts. (4.73 to 5.68 L) of clean potable water. Gradually add 50 lbs. (22.7 kg) of powder while slowly mixing.
2. Use a low-speed mixing drill (at about 300 rpm), with an angled cross-blade mixer or double-box mixer. Mix thoroughly for about 5 minutes or until the mixture becomes a smooth, homogenous, lump-free paste. Avoid prolonged mixing.
3. Let the mixture stand ("slake") for 5 minutes.
4. Remix.
5. If the 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 with 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 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).

MOVEMENT JOINTS

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

GROUTING

- Wait 16 to 24 hours before grouting with an appropriate NAA grout.

CLEANUP

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

PROTECTION

1. Provide for dry, heated storage on site and deliver materials at least 24 hours before tilework begins.
2. Protect tilework from adverse weather for at least 21 days after installation.

NA 3200

Multi Flex™ Pro

3. **Floors:** Protect from foot traffic for 24 hours. Protect from heavy traffic for 7 days. Protect from frost and rain for 7 days.
4. **Walls:** Protect from impact, vibrations and heavy hammering on adjacent and opposite walls for at least 14 days after installation.
5. 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 | |
|---|--|
| Colors | Gray; white |
| Packaging | Bag: 50 lbs. (22.7 kg), gray Bag: 50 lbs. (22.7 kg), white |
| VOCs (Rule #1168 of California's SCAQMD) | 0 g per L |
| Shelf life | 1 year when stored in original sealed container at room temperature in a dry, heated area. Protect from moisture, freezing and excessive heat. |
| Open time* | 30 minutes |
| Pot life* | > 2 hours |
| Time before grouting* | 16 to 24 hours |
| Cleanup | With clean water while mortar is 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 |
| E (extended open time) | ≥ 72.5 psi (0.5 MPa) after 30 minutes |

| ANSI Specification | | |
|--|------------------------------------|-----------------------------------|
| Test Method | Specification Standard | Test Results |
| ANSI A118.4 – shear strength, impervious ceramic (porcelain) mosaics | > 200 psi (1.38 MPa) at 28 days | 225 to 350 psi (1.55 to 2.41 MPa) |
| ANSI A118.4 – shear strength, glazed wall tile | > 300 psi (2.07 MPa) at 28 days | 375 to 550 psi (2.59 to 3.79 MPa) |
| ANSI A118.4 – shear strength, quarry tile to quarry tile | > 150 psi (1.03 MPa) at 28 days | 245 to 400 psi (1.69 to 2.76 MPa) |
| ANSI A118.4E – extended open time | ≥ 72.5 psi (0.5 MPa) at 30 minutes | Pass |
| ANSI A118.11 – shear strength, quarry tile to plywood | > 150 psi (1.03 MPa) at 28 days | 150 to 160 psi (1.03 to 1.10 MPa) |

| 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), square-notch | 75 to 90 sq. ft. (6.97 to 8.36 m ²) |
| 1/4" x 3/8" x 1/4" (6 x 10 x 6 mm), square-notch | 55 to 65 sq. ft. (5.11 to 6.04 m ²) |

** Coverage shown is for estimating purposes only. Actual coverage depends on substrate profile and porosity, equipment used, thickness applied, temperature and humidity.



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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.

For information on sustainability and transparency, as well as product certification programs,
contact Technical Services at 1-800-637-7753.

MKT: 24-1537

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in effect at the time of the NAA product installation. For the most up-to-date TDS and warranty information, visit our Website at www.na-adhesives.com. **ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED NAA WARRANTIES.**

Before using, the user must determine the suitability of our products for the intended use, and the user alone assumes all risks and liability. **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.**