NA 3640 Contact Plus FS

North American ADHESIVES®

Fast-Set, Medium-Bed Mortar with Polymer

ECO-FRIENDLY

GOOD	BETTER	BEST

PRODUCT DESCRIPTION

A polymer-modified, fast set, "full-contact" mortar that comes in gray and white for both medium-bed and thin-set floor applications. When used with the correct trowel, *NA 3640 Contact Plus FS* has superior wet-in characteristics that allow for extremely high mortar transfer to the back of tile and stone, which eliminate the needs for back-buttering.

USES

- Ideal for quick-turnover conditions because the surface can be opened up to heavy commercial traffic 24 hours after grouting
- For indoor/outdoor residential and commercial floor installations
- Use to install all sizes of ceramic, ceramic mosaic, quarry, pavers and porcelain tiles, as well as marble, granite and slate tiles.
- *NA 3640 Contact Plus FS* can be used with a wide variety of trowels to accommodate tile and stone, from smaller mosaics to large modular types.
- Use white *NA 3640 Contact Plus FS* when installing light-colored and translucent marble, and their agglomerates (see "Limitations").
- *NA 3640 Contact Plus FS* is different than other mortars. When mixed at the correct water/powder ratio, it will be looser than traditional mortars, yet it will hold the notch ridges and support the tile. In addition, *NA 3640 Contact Plus FS* will use less water than traditional dry-set mortars.
- Despite being rapid-set, *NA 3640 Contact Plus FS* has an outstanding 45 minutes of pot life.

SUBSTRATE REQUIREMENTS

The substrate 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 deleterious substance that can weaken the product's bond to the

SUITABLE SUBSTRATES (properly prepared)

- Fully cured concrete (at least 28 days old)
- Cement backer units (see manufacturer for recommendations)
- Cement mortars and leveling coats
- Cement terrazzo
- Existing unglazed ceramic tile, vinyl composition tile (VCT), vinyl asbestos tile (VAT) and old cutback adhesive, provided that these surfaces are well-bonded to an approved substrate (in residential and light commercial, indoor use only)
- Exterior-grade plywood, for indoor residential floors in dry areas only. Plywood must be Group 1, CC-type, conforming to APA classification and U.S. Product Standard PS 1-95 or similar performing underlayment qualities. (See the following deflection statement.)

TECHNICAL QUICK REFERENCE

Meets or exceeds ANSI A118.4 and ANSI A118.11 requirements

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

Pot life	45 to 60 minutes
Open time	15 to 20 minutes
Adjustability	30 minutes
Initial set (before grouting)	3 to 4 hours
Shear strength tests (at 28 days)	
Ceramic mosaics	400 psi (2,76 MPa)
Quarry tile to quarry tile	335 psi (2,31 MPa)
Quarry tile to plywood	230 to 250 psi (1,59 to 1,72 MPa)
Cleanability	With water while fresh
Colors	Gray; white
Shelf life	1 year when stored in original sealed container in a dry area and at room temperature
Packaging	Bag: 50 lbs. (22,7 kg)

TYPICAL TROWELS AND APPROXIMATE COVERAGES*

per 50 lbs. (22,7 kg)

3/16" x 3/16" x 3/16" (4,5 x 4,5 x 4,5 mm) ..... 110 to 130 sq. ft. (10,2 to 12,1 m^2)

1/4" x 1/4" x 1/4" (6 x 6 x 6 mm) ..... 70 to 90 sq. ft. (6,50 to 8,36 m^2)

1/4" x 3/8" x 1/4" (6 x 10 x 6 mm) ..... 50 to 65 sq. ft. (4,65 to 6,04 m^2)

3/8" x 3/8" x 3/8" (10 x 10 x 10 mm) ..... 35 to 45 sq. ft. (3,25 to 4,18 m^2)

3/4" x 9/16" x 3/8" (19 x 14 x 10 mm) ..... 25 to 30 sq. ft. (2,32 to 2,79 m^2)

** Trowel dimensions are width/depth/space. Coverages shown are for estimating purposes only. Actual job-site coverages may vary according to substrate conditions, type of trowel used and setting practices.*

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.

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LIMITATIONS

- Do not apply over wood planking, presswood, particleboard, chipboard, oriented strand board (OSB), pressure-treated or oil-treated plywood, Masonite, Lauan, gypsum floor-patching, gypsum leveling compounds, poured epoxy floors, noncushioned sheet vinyl, metal or similar dimensionally unstable substrates.
- Do not use for installations subject to submerged conditions, such as pools, spas, fountains or gang showers.
- Before using in areas subject to extreme climate variations, contact Technical Services for recommendations.
- Do not use for setting moisture-sensitive tile, natural stone or their agglomerates.

  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

When mixed at the correct water ratio, *NA 3640 Contact Plus FS* is more fluid than traditional dry-set mortars, yet it holds its ridges and supports the tile.

1. Into a clean mixing container, pour about 5 U.S. qts. (4,73 L) of cold water. Gradually add 50 lbs. (22,7 kg) of *NA 3640 Contact Plus FS* powder while slowly mixing.
2. Use a low-speed mixer (at about 300 to 400 rpm).
3. Avoid air entrapment by prolonged mixing, which will shorten the pot life.
4. Mix thoroughly to a homogenous and smooth consistency.
5. Do not let sit ("slake") in mixing container. Instead, spread material after mixing.
6. Some stiffening may occur before all material is used. If so, simply remix by hand or machine, but do not add any liquid.
7. 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. Due to superior wet-in characteristics, *NA 3640 Contact Plus FS* is a significant improvement over traditional mortars; however, proper trowel selection is key. Trowel selection will vary depending on the tile size, thickness and substrate condition. Select a typical notched trowel (see chart) with sufficient depth to achieve at least 90% contact to the back of the tile or stone.
3. Using the trowel's flat or straight 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.
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 for mixing will aid in the installation.
5. Do not spread more adhesive than can be covered before the adhesive begins to skin over ("set up"). To test for skinning, simply place a finger into the ridges of the applied adhesive. If there is no transfer of adhesive to the finger, skinning has occurred; scrape off and replace with fresh adhesive.
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.
8. Make all alignments and adjustments immediately following beat-in.
9. Clean all joints and wipe smudges from the tile face with a damp sponge or towel before material hardens.
10. Wait at least 3 to 4 hours after installation to grout.
11. Wash hands and tools with water while material is still fresh.

EXPANSION AND CONTROL JOINTS

1. Provide for expansion and control joints where specified. Refer to the most current TCNA handbook for ceramic tile installation, Detail EJ-171.
2. Do not cover any substrate expansion joint or control joints with mortar or tiles.
3. When necessary, cut tiles along both edges of the expansion joints. Do not allow tile and mortar to overlap the joints.
4. Protect the tilework with metal strips (edge metal) along both edges of structural building expansion joints.
5. Install the specified compressible bead and sealant into all expansion and control joints.

GROUTING

Allow tiles to reach a firm set (at least 3 to 4 hours), and then grout with an appropriate North American Adhesives (NAA) grout.

PROTECTION

1. Provide for dry, heated storage on site and deliver materials at least 24 hours before tilework begins.

   Note: The following recommendations for protecting the tilework refer to the actual tile-setting procedure. When determining the protection for the completed installation, take into consideration the grout being used and see the Technical Data Sheet of the respective grout.
2. Floors (*NA 4200* sanded grout and *NA 4300* unsanded grout): Protect floors from general foot traffic for at least 16 to 24 hours after grouting. Protect from heavy commercial traffic and equipment for 72 hours. Protect tilework from adverse weather for at least 21 days after grouting.
3. Floors (*NA 4240* sanded fast-set grout): Protect floors from general foot traffic for at least 3 to 4 hours after grouting. Protect from heavy commercial traffic and equipment for 24 hours. Protect tilework from adverse weather for at least 7 days after grouting.
4. Because temperature and humidity (during and after the installation of tile) affect the final curing time, allow for extended periods of curing 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.

North American ADHESIVES®

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