



North American
ADHESIVES®

NA 4650

Ever Color™ Q

Premium Epoxy Grout and Mortar with Color-Coated Quartz



PRODUCT DESCRIPTION

NA 4650 Ever Color Q is a two-component, 100%-solids epoxy grout and mortar that is nonsagging/nonslumping in joints up to 3/8" (10 mm) in width, water-cleanable and easy to apply. NA 4650 Ever Color Q uses a proprietary aggregate to achieve its durable color, making it excellent for countertops, high-traffic areas, and areas needing stain and chemical resistance. Easy to maintain, NA 4650 Ever Color Q will clean to the original color and contains technology to help protect against mold and mildew.

FEATURES AND BENEFITS

- Superior workability and water cleanability for ease of application
- Nonsagging and nonslumping in joints, for use in both floor and wall applications
- Color consistency and durability
- For grout joints from 1/16" to 3/8" (1.5 to 10 mm)
- No sealer required
- High stain resistance*

* With immediate cleaning and proper maintenance, NA 4650 Ever Color Q grout is highly resistant to staining when exposed to most common household goods and cleaning agents. Long-term exposure to any material can increase the potential for staining grout.

INDUSTRY STANDARDS

- ANSI: Meets A118.3 requirements
- ISO 13007: Classification R2/RG

Additional Green Certifications

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

USES

For use as a grout

- For grouting most ceramic, porcelain and quarry tiles; acid-resistant floor brick; pavers; and natural-stone tile**

- For grouting interior residential and commercial floor/wall applications
- For grouting exterior residential and commercial floor applications (contact Technical Services)
- For industrial, commercial and institutional installations with high-strength, chemical-resistant and nonsagging grout requirements, see the "Chemical Resistance" chart in this document. For extreme industrial or commercial applications such as dairies, breweries and high-volume food kitchens, NA 4700 Ever Color IQ is recommended.
- For heavy traffic areas such as subway stations, shopping malls and airport terminal buildings
- For areas requiring stain-resistant grout such as countertops and vanities

For use as a mortar

- For setting most ceramic, porcelain and quarry tiles; acid-resistant floor brick; pavers; and natural-stone tile**
- For the installation of moisture-sensitive natural stone and their agglomerates. When setting light-colored marble, which can be stained by epoxy, use white NA 3240 Multi Flex™ Rapid or white NA 3800 Magna Flex™.**
- For interior/exterior residential and commercial wall, floor and countertop installations
- For installations in areas subject to high water use or submerged conditions (such as gang showers, pools, spas and fountains)
- For industrial, commercial and institutional installations requiring chemical resistance, contact Technical Services.

** 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 or processes used in the manufacturing of agglomerates. Therefore, determine the suitability of all the materials before proceeding with the installation. To ensure desired results, a mockup installation is required before the actual installation.



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SUBSTRATE REQUIREMENTS

The temperature of the substrate or tilework must be between 60°F and 90°F (16°C and 32°C) while grouting for best results. For proper curing, maintain this temperature range for 72 hours after application.

For use as a grout

- The application of a grout release over certain types of porcelain or textured surface tiles or stone may be advantageous where a fine surface porosity might trap fine cement particles or color pigments. Seek the advice of the tile or stone manufacturer and site-test (mock up) on separate samples before grouting.
- Before grouting, make sure that the tiles or stones are firmly set and that the adhesive or mortar is completely dry.
- Remove all spacers, pegs, ropes and strings.
- Grout joints must be clean and free of standing water, dust, dirt and foreign matter. Remove excess adhesive or mortar from the joint area so that 2/3 of the tile depth is left available for grouting.
- Clean the tile or stone surface to remove dust, dirt, mortar, adhesive and other contaminants that may cause grout discoloration.

For use as a mortar

- All substrates should be structurally sound, stable, dry, clean and free of any substance or condition that may reduce or prevent proper adhesion.

SUITABLE SUBSTRATES (properly prepared)

For use as a mortar

- Fully cured concrete (at least 28 days old)
- Cement block and brick masonry
- Cement mortars and leveling coats
- Exterior-grade plywood (interior residential floor and countertop applications in dry areas only)
- Cement backer units (CBUs)
- Existing ceramic tile
- Cement and epoxy terrazzo

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

LIMITATIONS

For use as a grout

- Joint width should be between 1/16" and 3/8" (1.5 and 10 mm).
- Do not use for grouting white or translucent marble.
- Do not use in areas subject to excessive heat. Once cured, *NA 4650 Ever Color Q* will resist temperatures up to 212°F (100°C).
- When used as a grout on exterior installations, color variations may occur over time, especially with lighter shades due to ultraviolet rays or environmental contaminants.

Note: Some types of glazed ceramic tiles, marble and granite as well as marble agglomerates can be permanently stained, scratched, dulled or damaged when grouted with pigmented, sanded and epoxy grout formulas. Take all the necessary precautions to ensure that the marble, granite or tiles are compatible with colored grouts. To determine the suitability of the product with colored and/or sanded grouts, check the tile or marble manufacturer's literature and test grout on a separate sample area before grouting.

For use as a mortar

- Do not install over substrates containing asbestos.
- Do not exceed 1/4" (6 mm) in epoxy mortar thickness under the tile.
- Do not apply over particleboard, presswood, oriented strand board (OSB), Masonite, chipboard, Luan, gypsum floor-patching compounds or similar dimensionally unstable substrates.
- Do not use for setting white or translucent marble.
- Do not install over peel-and-stick crack-isolation membranes or cutback adhesive residue.

MIXING

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

1. Parts A and B are packaged to exact quantity ratios for proper curing.
2. Pour out all material from the Part B container into Part A. To improve flowability, use a margin trowel to thoroughly scrape all material from the Part B container. Always mix complete units. Do not add other materials to this mixture.
3. Use a slow-speed mixer (at about 300 rpm), or manually mix smaller kits with a margin trowel.
4. Avoid prolonged mixing, which will trap air and shorten the pot life.



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5. Mix thoroughly until a homogenous, consistent color is obtained. Scrape the edges of the mixing container at least once during mixing.
6. Wash tools immediately with water before the epoxy hardens. *NA 4650 Ever Color Q* is extremely difficult to remove once cured.
7. Do not place the lid on the container after the material has been mixed.

APPLICATION

For use as a grout

1. Remove mixed product from the container and place it in small piles. (If grouting a wall, place the product on kraft paper laid on the floor.) *NA 4650 Ever Color Q* is a thermosetting product, so that it sets up faster in a container or in a large mass.
 2. Use a hard-rubber float with a sharp edge to force the grout into the joints in a continuous manner, leaving it flush with the tile edge.
 3. Be certain that all joints are well-compacted and free of voids/gaps. Fill the joints with the maximum amount of grout possible.
 4. Thoroughly remove excess *NA 4650 Ever Color Q* from the face of the tile before it loses its plasticity or begins to set. This is most easily accomplished by holding the rubber float at a 90-degree angle to the tile surface and dragging the float across the tile surface diagonally to the grout lines, leaving as little epoxy grout on the tile surface as possible.
 5. Clean tiles immediately after applying each unit of *NA 4650 Ever Color Q*. Grout and clean in small areas. Do not attempt to use more than one *NA 4650 Ever Color Q* unit before cleaning tiles. Do not allow *NA 4650 Ever Color Q* to harden on the tile surface. On large projects, working in teams of 2 to 3 people will simplify the installation.
- 6a. For horizontal surfaces:
- Apply a liberal amount of cold water to the freshly grouted area. Scrub the tile surface diagonally to the joint line using a nonwoven, nylon, white scouring pad (use a more aggressive pad if the tile has an abrasive surface). Apply enough pressure on the pad to loosen any film without removing grout from the joints. Rinse pads frequently while cleaning. Be careful not to get any water in the ungrouted joints.
 - To remove the loosened epoxy residue and water, drag a clean sponge diagonally across the tile surface. Use one side of the sponge for each pass over the tile, rinsing the sponge following the second pass and regularly changing water in the buckets to avoid residue buildup.
 - Do not allow excess water to remain on the tile surface, which would allow a film to form on the surface that would be difficult to remove once hardened.
- In certain applications, a short-nap terry-cloth towel may be substituted for the sponge, which may work more effectively for removing the loosened epoxy residue and water. Using the “towel drag” method, hold the towel by two corners and drag it diagonally across the grout joints. Rinse the towel often and keep changing water in the buckets to avoid residue buildup.
- Do not step on freshly cleaned tiles, as this could permanently damage the grout.
- 6b. For vertical surfaces:
- Mist the surface using a spray bottle in small workable areas. Use a non-abrasive nylon scrub pad and apply enough pressure on the pad to loosen any film without removing grout from the joints. Rinse pads frequently while cleaning. Be careful not to get any water into the ungrouted joints.
 - To touch up grout joint imperfections during initial rinsing, the grout joint can be smoothed with a sharp-edged cellulosic sponge.
7. Perform a final wash within 15 to 20 minutes for best results. To aid in the cleaning process, 1 U.S. oz. (29.6 mL) of a clear dishwashing soap may be added (if needed) to a 3-gallon (11.4-L) pail of clean water. Use a clean, white scrub pad to loosen any remaining residue left on the tile from the first wash. Then follow the same cleaning process as referenced in the section above.
 8. Check the installation the following day to make sure it is completely clean. If a tacky residue is found within 24 hours of installation, follow the above instructions for the cleaning removal process.
 9. Use only fresh material to fill any voids discovered while cleaning.
 10. Check the installation the same day before leaving the jobsite to make sure it is completely clean. If the tile surface has any shiny or tacky residue, remove it with the solution of liquid detergent and water mentioned in Step 7.

For use as a mortar

1. Remove the mixed product from the container and place it in piles on the floor. *NA 4650 Ever Color Q* is a thermosetting product, so it sets faster in a container or a large mass.
2. Choose a notched trowel (see the “Approximate Coverage” chart) with sufficient depth to achieve more than 80% mortar contact to both the tile and substrate for interior applications, and more than 95% contact for exterior installations, commercial floor installations and wet applications. All edges of the tile or stone must be supported by the mortar. It may be necessary to back-butter tiles in order to reach these requirements. (Refer to ANSI A108.5 specifications and TCNA guidelines.)



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3. With pressure, apply a coat by using the trowel's flat side to key mortar into the substrate.
4. Apply additional mortar, combing it in a single direction with the trowel's notched side.
5. Spread only as much mortar as can be tiled before the product hardens and loses its ability to transfer to the tile. Open time can vary with jobsite conditions.
6. 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 (see TCNA adhesive placement guidelines).
7. 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).
8. Provide for expansion and control joints as specified per TCNA Detail E1171 or TTMAC Specification Guide 09 30 00, Detail 301MJ.
9. Clean tools immediately with fresh water.
10. Check the installation the same day before leaving the jobsite to make sure it is completely clean. If the tile surface has any shiny or tacky residue, remove it with a solution of 1 U.S. oz. (29.6 mL) of a clear dishwashing soap added (if needed) to a 3-gallon (11.4-L) pail of clean water.

MAINTENANCE

- *NA 4650 Ever Color Q* should be cured for at least 3 days before routine cleaning.
- When cleaning *NA 4650 Ever Color Q* as a grout, keep steam-cleaning wands 6" to 12" (15 to 30 cm) above the tile surface.
- North American Adhesives (NAA) grout products are produced to the highest standards of quality. To maintain a clean tile surface, use a neutral-pH cleaner for maintaining the floor, followed by a clean-water rinse.
- Do not use harsh chemicals to maintain the tile surface. Before proceeding with cleaning, consult the cleaner's manufacturer for compatibility, use and application instructions. Remove or rinse fatty acid residue from the grout surface to avoid potential grout deterioration caused by prolonged exposure.

PROTECTION

- Protect grout installations for at least 7 days, and wait at least 3 days before checking hardness.
- The optimum curing temperature is 73°F (23°C). Cooler temperatures may require extended protection times.
- Do not disturb grout or walk over installed tiles for at least 24 hours after setting. Do not allow heavy traffic over installed tiles for at least 48 hours after setting.
- Because propane gas heaters will yellow epoxy, refrain from using such heaters or properly vent all exhaust.
- *NA 4650 Ever Color Q* should be cured for at least 10 to 14 days at 73°F (23°C) before water immersion or exposure to chemicals. Longer times will be needed for colder temperatures.
- Do not allow any activity in the area that will cause dirt or debris to become embedded in the grout joints as they are curing.

CHEMICAL RESISTANCE (tested according to ISO 13007)

Resistance to chemicals depends on the concentration, temperature and duration of exposure. For long-term durability and improved grout appearance, clean up spills immediately after they occur.

Laboratory tests reveal variable resistance to certain chemicals. The following table may be considered as a general guide for NA 4650 Ever Color Q applications at 73°F (23°C).

For recommendations regarding chemicals not listed or concentrations exceeding the levels stated, contact Technical Services.

Legend

- ++ Excellent resistance
- + Good resistance; long exposure could cause some deterioration; clean surface rapidly with water
- Poor or no resistance

Product Types	Concentration	Laboratory	Long Time	Short Time
ACIDS				
Vinegar	2.5%	++	++	++
	5%	++	+	++
	10%	-	-	-
Hydrochloric acid	10%	++	++	++
Chromic acid	20%	-	-	-
Citric acid	10%	++	++	++
Formic acid	2.5%	++	++	++
	10%	-	-	-
Lactic acid	2.5%	++	++	++
	5%	++	+	++
	10%	+	-	+
Nitric acid	10%	++	+	++
	50%	-	-	-
Phosphoric acid	50%	++	++	++
	75%	+	+	+
Sulfuric acid	1.5%	++	++	++
	10%	++	++	++
	96%	-	-	-
Tannic acid	10%	++	++	++
Oxalic acid	10%	++	++	++
Oleic acid		-	-	-
BASE AND SALT SOLUTIONS				
Ammonia solution	25%	++	++	++
Caustic soda	50%	++	++	++
Hypochlorite solution				
• Act. CL 6.4 g/L		++	+	++
• Act. CL 165 g/L		-	-	-
Sodium hyposulfite		++	++	++
Calcium chloride		++	++	++
Iron chloride		++	++	++
Sodium chloride		++	++	++
Sodium chromate		++	++	++
Sugar		++	++	++
Aluminum sulfate		++	++	++
Potassium permanganate				
	5%	++	+	++
	10%	+	-	+
Caustic potash	50%	++	++	++
Hydrogen peroxide	1%	++	++	++
	10%	++	++	++
	25%	++	++	++
Sodium bisulfite		++	++	++
OILS AND COMBUSTIBLE PRODUCTS				
Gasoline		++	++	++
Turpentine		++	++	++
Diesel fuel		++	++	++
Peanut oil		++	++	++
Tar		++	+	+
Olive oil		++	++	++
Heating oil		++	++	++
SOLVENTS				
Acetone		-	-	-
Ethylene glycol		++	++	++
Glycerol		++	++	++
Methylcellulose		-	-	-
Perchloroethylene		-	-	+
Carbon tetrachloride		+	-	+
Chloroform		-	-	-
Methylene chloride		-	-	-
Toluene		-	-	+
Carbon disulfide		+	-	+
Mineral spirits		++	++	++
Benzene		-	-	+
Trichloroethane		-	-	-
Xylene		-	-	-

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Product Characteristics	
Colors	Available in 12 colors
Packaging	Kit: 1 U.S. gal. (3.79 L)
VOCs (Rule #1168 of California's SCAQMD)	8 g per L
Shelf life	2 years when stored in original, unopened packaging at 73°F (23°C)
Physical state	Resin (Part A) and hardener (Part B)
Pot life*	45 to 60 minutes
Full cure*	14 days
Application temperature range	60°F to 90°F (16°C to 32°C)

* Pot life and curing time will vary depending on ambient temperature, substrate temperature and humidity.

ISO 13007 Classification		
Classification Code	Classification Requirement	Test Characteristic
RG (reaction resin grout)	Abrasion resistance**	≤ 0.015 cu. in. (250 mm ³)
	Flexural strength**	> 4,350 psi (30 MPa)
	Compressive strength**	> 6,525 psi (45 MPa)
	Shrinkage**	< 0.06 in./3.28 ft. (1.5 mm/m)
	Water absorption**	< 0.0002 lb. (0.1 g)
R2 (reaction resin adhesive, improved)	Shear adhesion strength	≥ 2 N/mm ²
	Shear adhesion strength after water immersion	≥ 2 N/mm ²
	Open time: tensile adhesion strength	≥ 0,5 N/mm ² after not less than 20 minutes
	Shear adhesion strength after thermal shock	≥ 2 N/mm ²

** 28-day cure

ANSI Specification		
Test Method	Specification Standard	Test Results
ANSI A118.3 (5.1) – water cleanability	80 minutes	Pass
ANSI A118.3 (5.2)		
Initial setting time	> 2 hours	Pass
Service setting time	< 7 days	Pass
ANSI A118.3 (5.3) – shrinkage	< 0.25%	Pass
ANSI A118.3 (5.4) – sag	No change	Pass
ANSI A118.3 (5.5) – quarry shear bond	> 1,000 psi (6.90 MPa)	Pass
ANSI A118.3 (5.6) – compressive strength	> 3,500 psi (24.1 MPa)	Pass
ANSI A118.3 (5.7) – tensile strength	> 1,000 psi (6.90 MPa)	Pass
ANSI A118.3 (5.8) – thermal shock	> 500 psi (3.45 MPa)	Pass

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Approximate Coverage* (for use as a grout**)				
Coverage per 1 U.S. gal. (3.79 L)				
Tile Size	Grout Joint Width			
	1/16" (1.5 mm)	1/8" (3 mm)	1/4" (6 mm)	3/8" (10 mm)
1" x 1" x 1/4" (25 x 25 x 6 mm)	56 sq. ft. (5.20 m ²)	31 sq. ft. (2.88 m ²)	18 sq. ft. (1.67 m ²)	14 sq. ft. (1.30 m ²)
2" x 2" x 1/4" (50 x 50 x 6 mm)	108 sq. ft. (10.0 m ²)	56 sq. ft. (5.20 m ²)	31 sq. ft. (2.88 m ²)	22 sq. ft. (2.04 m ²)
3" x 3" x 1/4" (75 x 75 x 6 mm)	159 sq. ft. (14.8 m ²)	82 sq. ft. (7.62 m ²)	43 sq. ft. (3.99 m ²)	31 sq. ft. (2.88 m ²)
4" x 4" x 3/8" (100 x 100 x 10 mm)	140 sq. ft. (13.0 m ²)	72 sq. ft. (6.69 m ²)	37 sq. ft. (3.44 m ²)	26 sq. ft. (2.42 m ²)
4" x 8" x 1/2" (100 x 200 x 12 mm)	139 sq. ft. (12.9 m ²)	71 sq. ft. (6.60 m ²)	37 sq. ft. (3.44 m ²)	25 sq. ft. (2.32 m ²)
4" x 8" x 3/4" (100 x 200 x 19 mm)	93 sq. ft. (8.64 m ²)	47 sq. ft. (4.37 m ²)	24 sq. ft. (2.23 m ²)	17 sq. ft. (1.58 m ²)
4" x 8" x 1-1/8" (100 x 200 x 29 mm)	62 sq. ft. (5.76 m ²)	32 sq. ft. (2.97 m ²)	16 sq. ft. (1.49 m ²)	11 sq. ft. (1.02 m ²)
4" x 8" x 1-3/8" (100 x 200 x 35 mm)	51 sq. ft. (4.74 m ²)	26 sq. ft. (2.42 m ²)	13 sq. ft. (1.21 m ²)	9 sq. ft. (0.84 m ²)
4-1/4" x 4-1/4" x 1/4" (108 x 108 x 6 mm)	223 sq. ft. (20.7 m ²)	114 sq. ft. (10.6 m ²)	59 sq. ft. (5.48 m ²)	41 sq. ft. (3.81 m ²)
6" x 6" x 1/4" (150 x 150 x 6 mm)	313 sq. ft. (29.1 m ²)	159 sq. ft. (14.8 m ²)	82 sq. ft. (7.62 m ²)	56 sq. ft. (5.20 m ²)
6" x 6" x 1/2" (150 x 150 x 12 mm)	156 sq. ft. (14.5 m ²)	79 sq. ft. (7.34 m ²)	41 sq. ft. (3.81 m ²)	28 sq. ft. (2.60 m ²)
8" x 8" x 3/8" (200 x 200 x 10 mm)	277 sq. ft. (25.7 m ²)	140 sq. ft. (13.0 m ²)	72 sq. ft. (6.69 m ²)	49 sq. ft. (4.55 m ²)
10" x 10" x 3/8" (250 x 250 x 10 mm)	345 sq. ft. (32.1 m ²)	174 sq. ft. (16.2 m ²)	89 sq. ft. (8.27 m ²)	60 sq. ft. (5.57 m ²)
12" x 12" x 1/2" (300 x 300 x 12 mm)	310 sq. ft. (28.8 m ²)	156 sq. ft. (14.5 m ²)	79 sq. ft. (7.34 m ²)	54 sq. ft. (5.02 m ²)
16" x 16" x 3/8" (406 x 406 x 10 mm)	551 sq. ft. (51.2 m ²)	277 sq. ft. (25.7 m ²)	140 sq. ft. (13.0 m ²)	94 sq. ft. (8.73 m ²)

Approximate Coverage* (for use as a mortar)	
Trowel Size	Coverage per 1 U.S. gal. (3.79 L)
1/4" x 1/4" x 1/4" (6 x 6 x 6 mm), square-notch	18 sq. ft. (1.67 m ²)
5/32" x 5/32" (4 x 4 mm), V-notch	40 sq. ft. (3.72 m ²)

* Trowel dimensions are width/depth/space. Coverage shown is for estimating purposes only. Actual jobsite coverage may vary according to actual tile size and thickness, exact joint width, job conditions and grouting methods.

** When grouting abrasive or slip-resistant floor tiles, anticipated coverage can be dramatically decreased. Alternatives to the traditional grouting technique, such as a grout bag or commercial sealant gun, may be of assistance. Consult Technical Services for approximate coverage not shown in the above table.



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Printed in the USA.

Edition Date: July 8, 2019

Canada

1-844-410-1212

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: 19-1931

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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.**

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