

NA 4200

Color Fill™ S

Sanded Grout



North American
ADHESIVES®



PRODUCT DESCRIPTION

NA 4200 Color Fill S is a polymer-modified, sanded Portland-cement tile grout for narrow to wide grout joints 1/8" to 5/8" (3 to 16 mm) and that requires only the addition of water for mixing.

USES

- For grouting indoor/outdoor residential/commercial floor and wall surfaces and countertops in dry and wet conditions
- For grouting dimensional stone, slate, granite, stone agglomerates and most types of ceramic, ceramic mosaic, quarry, clay, porcelain and glass tiles, as well as brick pavers
- For applications in submerged conditions (swimming pools, spas, water features and fountains) once fully cured for 21 days

SURFACE PREPARATION

Before grouting, make sure the tiles or stones are firmly set and 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, foreign matter and other contaminants that may cause grout discoloration. Remove excess adhesive or mortar from the joint area so that 2/3 of the depth of the tile or stone is left available for grouting. Clean the tile or stone surface thoroughly to remove dust, dirt and other contaminants that may cause grout discoloration.

LIMITATIONS

- Use only at temperatures between 50°F and 100°F (10°C and 38°C). When grouting at temperatures above 80°F (26°C), call Technical Services for advice.
- Using consistent application and cleaning procedures will produce consistent results.
- NA 4200 Color Fill S is not recommended when a highly chemical-, impact- and stain-resistant grout is required or for heavy industrial tile installations.

- When grouting joints less than 1/8" (3 mm) wide, use NA 4300 Color Fill U unsanded grout.

- When grouting high-glazed ceramic tile or polished marble (see "Note"), use NA 4300 Color Fill U.

- Certain tiles with high absorption, surface porosity or rough surfaces may require sealing before grouting to prevent permanent staining.
- Applying 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 perform a site test ("mockup") on separate samples before grouting.

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

Consult Technical Services regarding conditions not listed.

HEALTH AND SAFETY

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

NA 4200

Color Fill™ S

MIXING

1. Consistent mixing will promote more uniform results.
2. Before mixing the grout with water, dry-blend the product to avoid color variations in the finished grout, which may arise from pigment settling during shipment. If two or more bags are to be used, dry-blend all the contents together first.
3. Mix *NA 4200 Color Fill S* with cool, clean water only. Mix by using the following water-to-grout proportions:

<u>Water</u>	<u>NA 4200 Color Fill S</u>
26 U.S. oz. (769 mL)	10 lbs. (4,54 kg)
2 U.S. qts. (1,89 L)	25 lbs. (11,3 kg)

4. Pour the required amount of clean, cool water into a clean mixing container. Gradually add in the proportionate amount of *NA 4200 Color Fill S* while slowly mixing. To avoid shade variation of the finished joint, always add the powder to the water and be consistent in the mixing process and the quantity of water used from batch to batch.
5. Mix thoroughly with a low-speed mixer (at about 300 to 400 rpm) for about 3 to 5 minutes, or until achieving a smooth, creamy, homogenous paste consistency and a uniform shading of the colored grout.
6. Avoid air entrapment from prolonged mixing, which will shorten the pot life.
7. Allow the grout to sit ("slake") in the container for about 5 minutes.
8. Remix for 1 to 2 minutes without adding any more liquid or dry powder.
9. Wash hands and mixing tools with water immediately after mixing.

GROUTING

1. To aid in spreading the grout, slightly moisten the tile or stone surface with a damp sponge just before application. Do not flood the tiles or allow water to stand in the ungrouted joint areas.
2. Force *NA 4200 Color Fill S* into the joints with a rigid rubber float. Make sure all joints are well-compacted and free of voids and gaps.
3. Remove excess grout from the tile or stone surface, moving the float diagonally to the joints while the grout is still fresh.
4. The grout surface should be flush with the tile edge.
5. Some stiffening may occur before all material is used (within about 1 hour at room temperature). If so, simply remix, but do not add any more liquid.

MOVEMENT JOINTS

- Provide for expansion and control joints where specified. Refer to the most current TCNA handbook for ceramic tile installation, Detail EJ-171.
- Do not cover any movement joints with *NA 4200 Color Fill S*.
- When necessary, cut the tiles along both edges of the expansion joints. Do not allow the tile or mortar to overlap the joints.
- Protect the edges of the tilework with metal strips (edge metal) along both sides of the structural building expansion joints.
- Install the specified compressible bead and sealant in all expansion and control joints.

CLEANING

1. Allow the grout to firm up in the joints sufficiently to avoid damaging the grout surface (usually in 15 to 30 minutes, depending upon the temperature, humidity and absorption rate of the tile or stone).
2. Use two buckets of cleaning water: one for rinsing the majority of the grout residue from the sponge, and one for moistening the sponge in clean water.
3. Dip the sponge in a bucket of water and wring out the excess, so that the sponge does not drip water. Using very little pressure, pull the sponge diagonally across the grout joints to remove the excess grout from the tile surface. Also, use the sponge to smooth the face of the grout joint. Turn the sponge over and make another pass in an adjacent area. After using both sides, rinse the sponge in one bucket and wring out the excess water. Dip the sponge in the second bucket of water, wring out the excess and repeat the process.
4. Change the clean-water bucket frequently to help limit the amount of haze that forms on the tile or stone surface.
5. To prevent efflorescence, discoloration and soft/powdery joints, avoid cleaning with excessive water.
6. To control color variations and minimize efflorescence, buff the grouted surface with cheesecloth or a clean, dry, cotton cloth when a haze is visible on the tile surface, usually one to two hours after grouting. This should remove any remaining surface water or grout residue.
7. Clean hands and tools with clean, soapy water while the grout is fresh.
8. Never use acid for cleaning marble, glazed tile and pigmented grout surfaces. If a persistent haze remains after normal cleaning, contact Technical Services.



MAINTENANCE

- Sealing the grout is recommended but not mandatory. When choosing a sealer, follow the recommendations and instructions of the sealer manufacturer.
- The grout must be fully cured for 21 days before regular cleaning.
- North American Adhesives (NAA) grout products are produced to the highest quality of standards. 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 or no-rinse cleaners (including enzyme-based, no-rinse cleaners) to maintain the tile surface. Before proceeding with cleaning, consult the cleaner's manufacturer for compatibility, use and application instructions.

PROTECTION

- Provide for dry heated storage on site and deliver materials at least 24 hours before tilework begins.
- For residential showers and tub surrounds, restrict use for 24 to 48 hours after grouting and for 14 days for steam showers.
- Protect from freezing and do not immerse the installation in water for at least 21 days after completion.
- Floors: Wait about 24 hours before grouting. Keep free from heavy traffic for at least 72 hours after grouting.
- Walls: Wait about 8 to 16 hours before grouting. Protect from impact, vibration and hammering on adjacent and opposite walls for 14 days after the installation of the tile.
- Because temperature and humidity (during and after the installation of the tile) affect the final curing time of all cement-based materials, 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%.

See the Technical Data Sheet of the adhesive for applicable information.

ISO 13007 Classification	
Classification Code	Classification Requirement
CG2 (cementitious grout, improved)	≤ 0.20% shrinkage in 28 days
W (reduced water absorption)	≤ 5 g after 4 hours
A (high abrasion resistance)	≤ 1,000 mm ³

Technical Quick Reference

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

Colors	NA 4200 Color Fill S is available in a wide range of popular colors. Refer to grout chip kits and color cards for the complete color range available (3-digit color #'s).
Packaging Bag: 10 lbs. (4,54 kg) Bag: 25 lbs. (11,3 kg)	Product code #420010XXX Product code #420025XXX
Shelf life	2 years when stored in original sealed container at room temperature in a dry, heated area. Protect from moisture, freezing and excessive heat.
Pot life*	> 1 hour
Compressive strength at 28 days	> 3,500 psi (24,1 MPa)
Time before grouting	Wall joints: 8 to 16 hours Floor joints: 24 hours
Cleanup	With clean water while fresh

* Pot life varies based on jobsite conditions.

ANSI Specification

Test Method	Specification Standard	Test Results
ANSI A118.6 – flexural strength	> 350 psi (2,41 MPa) at 7 days	350 to 1,000 psi (2,41 to 6,90 MPa) at 7 days
ANSI A118.6 – compressive strength	> 3,500 psi (24,1 MPa) at 28 days	3,500 to 5,000 psi (24,1 to 34,5 MPa) at 28 days
ANSI A118.6 – shrinkage	< 0.03% (1 day); < 0.10% (7 days)	< 0.03% (1 day); < 0.10% (7 days)
ANSI A118.6 – water absorption	< 10% (50% relative humidity to immersion); < 12% (immersion to dry)	< 10% (50% relative humidity to immersion); < 12% (immersion to dry)

Industry Standards and Approvals

LEED Points Contribution	LEED 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.

NA 4200 Color Fill™ S

Approximate Coverage* – sq. ft. (m²) per 10 lbs. (4,54 kg)

Tile Size	Grout Joint Width					
	1/8" (3 mm)	3/16" (4,5 mm)	1/4" (6 mm)	3/8" (10 mm)	1/2" (12 mm)	5/8" (16 mm)
1" x 1" x 1/4" (25 x 25 x 6 mm)	18 (1,67)	12 (1,11)	9 (0,84)	5 (0,46)	4 (0,37)	3 (0,28)
2" x 2" x 1/4" (50 x 50 x 6 mm)	37 (3,44)	25 (2,32)	18 (1,67)	12 (1,11)	9 (0,84)	7 (0,65)
3" x 3" x 1/4" (75 x 75 x 6 mm)	57 (5,30)	37 (3,44)	28 (2,60)	18 (1,67)	13 (1,21)	11 (1,02)
4-1/4" x 4-1/4" x 1/4" (108 x 108 x 6 mm)	81 (7,53)	53 (4,92)	40 (3,72)	26 (2,42)	19 (1,77)	15 (1,39)
4" x 8" x 1/2" (100 x 200 x 12 mm)	51 (4,74)	34 (3,16)	25 (2,32)	17 (1,58)	12 (1,11)	10 (0,93)
6" x 6" x 1/4" (150 x 150 x 6 mm)	114 (10,6)	76 (7,06)	57 (5,30)	37 (3,44)	28 (2,60)	22 (2,04)
6" x 6" x 1/2" (150 x 150 x 12 mm)	57 (5,30)	38 (3,53)	28 (2,60)	19 (1,77)	14 (1,30)	11 (1,02)
8" x 8" x 3/8" (200 x 200 x 10 mm)	102 (9,48)	68 (6,32)	51 (4,74)	33 (3,07)	25 (2,32)	20 (1,86)
12" x 12" x 3/8" (300 x 300 x 10 mm)	153 (14,2)	101 (9,38)	76 (7,06)	51 (4,74)	38 (3,53)	30 (2,79)
13" x 13" x 3/8" (330 x 330 x 10 mm)	166 (15,4)	110 (10,2)	83 (7,71)	55 (5,11)	41 (3,81)	33 (3,07)
16" x 16" x 3/8" (406 x 406 x 10 mm)	204 (19,0)	136 (12,6)	102 (9,48)	68 (6,32)	51 (4,74)	40 (3,72)
18" x 18" x 3/8" (457 x 457 x 10 mm)	230 (21,4)	153 (14,2)	115 (10,7)	76 (7,06)	57 (5,30)	45 (4,18)
20" x 20" x 3/8" (508 x 508 x 10 mm)	256 (23,8)	170 (15,8)	128 (11,9)	85 (7,90)	63 (5,85)	51 (4,74)
24" x 24" x 3/8" (610 x 610 x 10 mm)	307 (28,5)	204 (19,0)	153 (14,2)	102 (9,48)	76 (7,06)	61 (5,67)

Approximate Coverage* – sq. ft. (m²) per 25 lbs. (11,3 kg)

Tile Size	Grout Joint Width					
	1/8" (3 mm)	3/16" (4,5 mm)	1/4" (6 mm)	3/8" (10 mm)	1/2" (12 mm)	5/8" (16 mm)
1" x 1" x 1/4" (25 x 25 x 6 mm)	45 (4,18)	29 (2,69)	22 (2,04)	14 (1,30)	10 (0,93)	7 (0,65)
2" x 2" x 1/4" (50 x 50 x 6 mm)	93 (8,64)	61 (5,67)	45 (4,18)	29 (2,69)	22 (2,04)	17 (1,58)
3" x 3" x 1/4" (75 x 75 x 6 mm)	142 (13,2)	93 (8,64)	69 (6,41)	45 (4,18)	33 (3,07)	26 (2,42)
4-1/4" x 4-1/4" x 1/4" (108 x 108 x 6 mm)	202 (18,8)	134 (12,4)	99 (9,20)	65 (6,04)	48 (4,46)	38 (3,53)
4" x 8" x 1/2" (100 x 200 x 12 mm)	127 (11,8)	84 (7,80)	63 (5,85)	42 (3,90)	31 (2,88)	25 (2,32)
6" x 6" x 1/4" (150 x 150 x 6 mm)	285 (26,5)	190 (17,7)	142 (13,2)	93 (8,64)	69 (6,41)	55 (5,11)
6" x 6" x 1/2" (150 x 150 x 12 mm)	143 (13,3)	95 (8,83)	71 (6,60)	47 (4,37)	35 (3,25)	28 (2,60)
8" x 8" x 3/8" (200 x 200 x 10 mm)	255 (23,7)	169 (15,7)	126 (11,7)	84 (7,80)	62 (5,76)	50 (4,65)
12" x 12" x 3/8" (300 x 300 x 10 mm)	383 (35,6)	253 (23,5)	191 (17,7)	126 (11,7)	94 (8,73)	75 (6,97)
13" x 13" x 3/8" (330 x 330 x 10 mm)	415 (38,6)	275 (25,5)	207 (19,2)	137 (12,7)	102 (9,48)	82 (7,62)
16" x 16" x 3/8" (406 x 406 x 10 mm)	510 (47,4)	340 (31,6)	255 (23,7)	169 (15,7)	126 (11,7)	101 (9,38)
18" x 18" x 3/8" (457 x 457 x 10 mm)	575 (53,4)	383 (35,6)	288 (26,8)	191 (17,7)	142 (13,2)	114 (10,6)
20" x 20" x 3/8" (508 x 508 x 10 mm)	640 (59,5)	425 (39,5)	320 (29,7)	212 (19,7)	159 (14,8)	126 (11,7)
24" x 24" x 3/8" (610 x 610 x 10 mm)	768 (71,3)	510 (47,4)	383 (35,6)	255 (23,7)	191 (17,7)	152 (14,1)

* Tile dimensions are width/length/thickness. Coverage shown is for estimating purposes only. Actual jobsite coverage may vary according to tile size and thickness, exact joint width, job conditions and grouting methods. For more precise coverage or for coverage not shown here, contact Technical Services.



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

© 2013 MAPEI Corporation
All Rights Reserved.
Printed in the USA.

PR: 6371 MKT: 6010

Edition Date: April 25, 2013

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.

For the most current product data and warranty information, visit www.na-adhesives.com.