

Keracolor S

Premium Sanded Grout with Polymer



DESCRIPTION

Keracolor® S is a premium-grade, pre-blended, polymer-modified sanded Portland-cement tile grout that requires only the addition of water for mixing. It will grout joints from 1/8" to 5/8" (3 to 16 mm).

FEATURES AND BENEFITS

- For interior/exterior floors and walls
- Contains BioBlock® technology for mold and mildew resistance

INDUSTRY STANDARDS AND APPROVALS

- ISO 13007: Classification CG2WA
- ANSI: Meets or exceeds ANSI A118.6 industry standards

WHERE TO USE

- For grouting interior/exterior residential and commercial floor and wall surfaces in dry or wet conditions
- For interior/exterior residential and commercial installations from Res 1 to Res 7 and Com 1 to Com 7, as detailed per TCNA Environmental Exposure Classifications
- For grouting dimensional stone, slate, granite, stone agglomerates and most types of ceramic, ceramic mosaic, quarry, brick paver, porcelain, glass and clay tiles
- For joint widths from 1/8" to 5/8" (3 to 16 mm)
- For application in submerged conditions (swimming pools, spas, water features and fountains), once fully cured (after 21 days)

LIMITATIONS

- Do not install over substrates containing asbestos.
- Do not use to grout joints less than 1/8" (3 mm) wide. Instead, use *Keracolor U*, *Ultracolor® Plus FA* or an appropriate MAPEI epoxy grout (see the respective Technical Data Sheet [TDS] for details).
- Do not use when a highly chemical-, impact- and stain-resistant grout is required or in heavy industrial tile installations. Instead, use an appropriate MAPEI epoxy grout (see the respective TDS for details).
- When grouting in temperatures above 80°F (26°C), see the technical bulletins at www.mapei.com or consult MAPEI's Technical Services Department.

Consult MAPEI's Technical Services Department for recommendations regarding installation over substrates and conditions not listed.

SURFACE PREPARATION

- Certain tiles with high absorption, surface porosity or rough surfaces may require sealing before grouting to prevent permanent staining.
- 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.
- Caution: 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 grout on a separate sample area before grouting to determine the suitability of the product with colored and/or sanded grouts.
- 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 and foreign matter. Remove excess adhesive or mortar from the joint area so that 2/3 of the depth of the tile is left available for grouting.
- Clean the tile or stone surface thoroughly to remove dust, dirt and other contaminants that may cause grout discoloration.

See the "Surface preparation requirements" reference guide in the Tile & Stone Installation Systems section of MAPEI's Website.

MIXING

Before product use, take appropriate safety precautions. Refer to the Safety Data Sheet for details.

1. For best results, have the same person mix all of the grout. Consistent mixing techniques will promote more uniform results.
2. Before mixing the grout with water, dry-blend the product so that the finished grout does not show color variations, which may arise due to pigment settling during shipment. If two or more bags are to be used, dry-blend all of the contents together.
3. Mix *Keracolor S* with cool, clean water or an approved MAPEI additive. Mix by using the following water-to-grout proportions:

<u>Water</u>	<u><i>Keracolor S</i> powder</u>
2.5 U.S. oz. (74 mL).....	1 lb. (0.45 kg)
13 U.S. oz. (384 mL).....	5 lbs. (2.27 kg)
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 the proportionate amount of *Keracolor S* while slowly mixing. To avoid shade variation in the finished grout joints, always add the powder to the water while being consistent in the mixing process and with the quantity of water used from batch to batch.

Note: When mixing 25-lb. (11.3-kg) bags, it might be necessary to mix partial bags. In this situation, a 4-to-1 ratio of powder to water can be mixed by volume. When using this ratio, keep in mind that it is a starting point: You might need to use slightly more or less powder or water in order to fine-tune the consistency of the mixture.

5. Mix thoroughly with a low-speed mixer (at about 350 rpm) for about 3 to 5 minutes, or until obtaining a smooth, creamy, homogenous paste consistency and a uniform shading of the colored grout.
6. Avoid prolonged mixing, which could trap air and shorten the pot life.
7. Allow the grout to sit ("slake") in the container for about 5 minutes.
8. Remix for about 1 to 2 minutes without adding more liquid or powder.
9. Wash hands and mixing tools with water immediately after mixing.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. Use only at temperatures between 50°F and 100°F (10°C and 38°C).
2. Using consistent application and cleaning procedures will produce consistent results.
3. 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.
4. Force *Keracolor S* into the joints with a rubber grout float. Make sure all joints are well-compacted and free of voids and gaps.
5. Remove excess grout from the tile surface, moving the grout float diagonally to the joints while the *Keracolor S* is still fresh.
6. The grout surface should be flush with the tile edge.
7. Some stiffening may occur before all material is used (usually within about 1 hour at room temperature). If this occurs, simply remix but do not add any liquid.

8. Provide for expansion and control joints as specified per TCNA Handbook Method EJ171 or TTMAC Specification Guide 09 30 00, Detail 301EJ.
9. Allow the *Keracolor S* 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.
10. Use two buckets of cleaning water: One for rinsing the majority of the grout residue from the grout sponge, and one for moistening the sponge in clean water.
11. 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 surface 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, wringing out the excess and continuing the process.
12. Change the water in the buckets frequently to help limit the amount of haze that forms on the tile or stone surface.
13. To prevent efflorescence, discoloration and soft/powdery joints, avoid cleaning with excessive water.
14. 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.
15. Clean hands and tools with clean, soapy water while the grout is fresh.
16. Never use acid for cleaning marble, glazed tile or pigmented grout surfaces. If a persistent haze remains after normal cleaning, see the technical bulletins at www.mapei.com or consult MAPEI's Technical Services Department.

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. For steam showers, restrict use for 14 days after grouting.
- For at least 21 days after grouting, protect the installation from freezing and water immersion (see the TDS of the adhesive or setting system for details).
- Floors: Keep the grout installation free from heavy traffic for at least 72 hours after grouting.
- Walls: Protect the grout installation from impact, vibration and hammering on adjacent and opposite walls for 14 days after tile installation (see the TDS of the adhesive or setting system for details).
- Because temperature and humidity (during and after installation of tile) affect the final curing time of all cement-based materials, 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%.

MAINTENANCE

- Sealing is not required. However, a high-performance penetrating grout sealer may still be applied from MAPEI's *UltraCare*® family of sealers, which includes Penetrating Plus Stone, Tile & Grout Sealer; and Penetrating Plus SB Stone & Porcelain Tile Sealer. Follow the directions provided in the *UltraCare* Maintenance Guide at www.mapei.com.
- Grout must be fully cured for 21 days before regular cleaning.
- MAPEI grout products are produced to the highest standard 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 chemical cleaners 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.

ISO 13007 Classification

Classification Code	Test Characteristics	Classification Requirement
CG2 (cementitious grout, improved)	Shrinkage	≤ 0.30% shrinkage in 28 days
W (reduced water absorption)	Water absorption	≤ 5 g after 4 hours
A (high abrasion resistance)	Abrasion resistance	≤ 1 000 mm ³

ANSI Specifications

Test Method	Specification Standard	Test Results
ANSI A118.6 – flexural strength	500 psi (3.45 MPa) minimum at 28 days	500 to 1,100 psi (3.45 to 7.59 MPa)
ANSI A118.6 – compressive strength	3,000 psi (20.7 MPa) at 28 days	3,500 to 5,500 psi (24.1 to 37.9 MPa)
ANSI A118.6 – shrinkage	< 0.20% at 27 days	< 0.20%
ANSI A118.6 – water absorption	< 10% at 50% relative humidity to immersion	< 10%

Shelf Life and Product Characteristics

before mixing

Shelf life	2 years when stored in original, unopened packaging at 73°F (23°C)
Physical state	Powder
Colors	Available in MAPEI's most popular grout colors

Application Properties*

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

Pot life	About 1 hour
Application temperature range	50°F and 100°F (10°C and 38°C)
Full cure	21 days
VOCs (Rule #1168 of California's SCAQMD)	0 g per L

* Application properties vary based on jobsite conditions.

Packaging

Size

Tub: 1 lb. (0.45 kg), Canada only

Bag: 10 lbs. (4.54 kg)

Bag: 25 lbs. (11.3 kg)

Approximate Coverage**

Per 10 lbs. (4.54 kg) – Coverage in sq. ft. (m²)

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" 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)
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)
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**Per 25 lbs. (11.3 kg) – Coverage in sq. ft. (m²)

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" 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)
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)
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 (9.28)	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)

** 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. Consult MAPEI's Technical Services Department or use the grout calculator at www.mapei.com for approximate coverage not shown above.

RELATED DOCUMENTS

Technical bulletin: "Causes and cures of efflorescence"***

*** At www.mapei.com

ADDITIONAL INFORMATION

Refer to the Safety Data Sheet (SDS) for specific data related to health and safety as well as product handling.

For information on MAPEI's commitment to sustainability and transparency, as well as how MAPEI products may contribute to green building standards and certification systems, contact sustainability-durabilite@mapei.com.

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 nor replace requirements per the TDS in effect at the time of the MAPEI product installation. For the most up-to-date TDS and warranty information, please visit our website at www.mapei.com. **ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED MAPEI 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.**

CONTACT INFORMATION

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Technical Services

U.S. and Puerto Rico:
Flooring: 1-800-992-6273
Concrete and heavy construction: 1-888-365-0614
Canada:
1-800-361-9309

Customer Service

1-800-42-MAPEI (1-800-426-2734)

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For the most current product data and BEST-BACKEDSM warranty information, visit www.mapei.com.

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