

- 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 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 glass, 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, lighter-shade 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. A test sample can also confirm the desired color and texture of *Ultracolor Plus FA*.
- 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.
- Remove all spacers, pegs, ropes and strings.
- Before grouting, make sure that the tiles or stones are firmly set and that the adhesive or mortar is completely dry.
- 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 Related Documents section of the Tile & Stone Installation Systems page on 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 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, all of the contents should be dry-blended together.
3. Mix *Ultracolor Plus FA* with cool, clean water only. Do not mix with grout additives. Mix by using the following water-to-grout proportions:

<u>Ultracolor Plus FA powder</u>	<u>Water</u>
10 lbs. (4.54 kg)	1 to 1.1 U.S. qts. (0.95 to 1.04 L)
25 lbs. (11.3 kg)	2.6 to 2.8 U.S. qts. (2.46 to 2.65 L)

4. Pour the required measured amount of water into a clean mixing container. Gradually add the proportionate amount of *Ultracolor Plus FA* while slowly mixing. To avoid shade variation of the finished joint, always add the powder to the water while being consistent in the mixing process and 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 3-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 4 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 will trap air and shorten the pot life.
7. Wash tools immediately with fresh water.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. Use only at temperatures between 50°F and 95°F (10°C and 35°C). With temperatures above 80°F (26°C), use cold water to mix the powder.
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. Spread *Ultracolor Plus FA* immediately into the joints with a rubber grout float. Make sure that 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 *Ultracolor Plus FA* 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 more liquid.
8. Provide for expansion and control joints as specified per TCNA handbook method EJ171 or TTMAC Specification Guide 09300, Detail 301EJ.
9. For full and color-consistent grout joints, allow the grout to set for typically 15 to 30 minutes at 73°F (23°C) before cleaning. Time before cleaning depends on the temperature, humidity and absorption of the tile/stone. When highly absorptive tile such as nonvitreous wall tile is grouted, the grout requires less setting time (about 5 to 10 minutes) before initial cleaning.

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 continue 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 discoloration and soft/powdery joints, avoid cleaning with excessive water.
14. To control color variations, buff the grouted surface with cheesecloth or a clean, dry cotton cloth when a haze is visible on the tile surface, usually 30 to 60 minutes after grouting. This should remove any remaining surface water or grout residue.
15. Wash tools immediately with fresh water.
16. Never use acid for cleaning marble, glazed tile or pigmented grout surfaces. If a persistent haze remains after normal cleaning, see the technical bulletin "How to remove grout haze" 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 at least 3 days after completion, protect from rain and freezing, and do not immerse the installation in water.
- **Floors:** Keep the installation free from foot traffic for at least 3 hours after grouting.
- **Walls:** Protect the 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 curing and protection when temperatures drop below 60°F (16°C) and/or when the relative humidity is higher than 70%.

MAINTENANCE

- Grout must be cured for at least 24 hours before regular cleaning.
- MAPEI 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 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.
- 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.

GROUTING IN HOT WEATHER

When *Ultracolor Plus FA* is being installed in hot weather – between 80°F and 95°F (26°C and 35°C) – these procedures should be followed in order to accomplish the best results:

- Store grout bag(s) at room temperature for at least 24 hours before use.
- Use cold water for mixing.
- Set mixing bucket inside a cold-water bath.
- Pre-wet tiles with cold water to lower the tile temperature and provide more working time (which is crucial for exterior and/or dark tile designs).
- Grout in the morning or evening hours to avoid the hottest part of the day.
- Remove as much of the excess from the tile surface as possible for easier cleanup.
- Start the initial wash in 15 minutes or less.
- Use tenting when grouting exterior to minimize sun exposure.
- Do not retemper the grout by adding additional water.
- You can remix the grout if the grout begins to stiffen up in the bucket. No additional water added.

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
F (rapid-setting)	Compressive strength	≥ 2,175 psi (15 MPa) after 24 hours

ANSI Specification

Test Method	Specification Standard	Test Results
ANSI A118.7 – compression	3,000 psi (20.7 MPa) at 28 days	3,000 to 5,500 psi (20.7 to 37.9 MPa) at 28 days
ANSI A118.7 – shrinkage	< 0.20% at 27 days	< 0.20% at 27 days
ANSI A118.7 – tensile strength	500 psi (3.45 MPa) at 28 days	500 to 600 psi (3.45 to 4.14 MPa) at 28 days
ANSI A118.7 – water absorption	< 5% (50% relative humidity to immersion)	< 5% (50% relative humidity to immersion)
ANSI A118.7 – flexural strength	1,000 psi (6.90 MPa) at 28 days	1,000 to 1,400 psi (6.90 to 9.66 MPa) at 28 days

Shelf Life and Product Characteristics before mixing

Shelf life	1 year when stored in original, unopened packaging at 73°F (23°C) in a dry area
Physical state	Powder

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

Mixing ratio	Per 10 lbs. (4.54 kg) of grout powder: 1 to 1.1 U.S. qts. (0.95 to 1.04 L) of water Per 25 lbs. (11.3 kg) of grout powder: 2.6 to 2.8 U.S. qts. (2.46 to 2.65 L) of water
VOCs (Rule #1168 of California's SCAQMD)	0 g per L
Pot life*	30 minutes to 1 hour
Application temperature range	50°F and 95°F (10°C and 35°C)
Curing time*	3 days

* Pot life and curing time vary based on jobsite conditions, including cold temperatures or high humidity.

Packaging

Size
Bag: 10 lbs. (4.54 kg)
Bag: 25 lbs. (11.3 kg)

Approximate Coverage* in sq. ft. (m²) per 10 lbs. (4.54 kg)

Tile Size	Grout Joint Width							
	1/16" (1.5 mm)	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)	3/4" (19 mm)
1" x 1" x 1/4" (25 x 25 x 6 mm)	39 (3.62)	20 (1.86)	13 (1.21)	10 (0.93)	7 (0.65)	5 (0.46)	4 (0.37)	4 (0.37)
2" x 2" x 1/4" (50 x 50 x 6 mm)	78 (7.25)	39 (3.62)	26 (2.42)	20 (1.86)	13 (1.21)	10 (0.93)	8 (0.74)	7 (0.65)
3" x 3" x 1/4" (75 x 75 x 6 mm)	117 (10.9)	59 (5.48)	39 (3.62)	30 (2.79)	20 (1.86)	15 (1.39)	12 (1.11)	10 (0.93)
4" x 8" x 1/2" (100 x 200 x 12 mm)	104 (9.66)	52 (4.83)	35 (3.25)	26 (2.42)	18 (1.67)	13 (1.21)	11 (1.02)	9 (0.84)
4-1/4" x 4-1/4" x 1/4" (108 x 108 x 6 mm)	165 (15.3)	83 (7.71)	55 (5.11)	42 (3.90)	28 (2.60)	21 (1.95)	17 (1.58)	14 (1.30)
6" x 6" x 1/4" (150 x 150 x 6 mm)	233 (21.6)	117 (10.9)	78 (7.25)	59 (5.48)	39 (3.62)	30 (2.79)	24 (2.23)	20 (1.86)
6" x 6" x 1/2" (150 x 150 x 12 mm)	117 (10.9)	59 (5.48)	39 (3.62)	30 (2.79)	20 (1.86)	15 (1.39)	12 (1.11)	10 (0.93)
6" x 24" x 3/8" (150 x 610 x 10 mm)	249 (23.1)	125 (11.6)	83 (7.71)	63 (5.85)	42 (3.90)	32 (2.97)	25 (2.32)	21 (1.95)
8" x 8" x 3/8" (200 x 200 x 10 mm)	207 (19.2)	104 (9.66)	69 (6.41)	52 (4.83)	35 (3.25)	26 (2.42)	21 (1.95)	18 (1.67)
12" x 12" x 3/8" (300 x 300 x 10 mm)	311 (28.9)	156 (14.5)	104 (9.66)	78 (7.25)	52 (4.83)	39 (3.62)	32 (2.97)	26 (2.42)
12" x 24" x 3/8" (300 x 600 x 10 mm)	414 (38.5)	207 (19.2)	138 (12.8)	104 (9.66)	69 (6.41)	52 (4.83)	42 (3.90)	35 (3.25)
13" x 13" x 3/8" (330 x 330 x 10 mm)	337 (31.3)	169 (15.7)	113 (10.5)	85 (7.90)	57 (5.30)	43 (3.99)	34 (3.16)	29 (2.69)
18" x 18" x 3/8" (457 x 457 x 10 mm)	466 (43.3)	233 (21.6)	156 (14.5)	117 (10.9)	78 (7.25)	59 (5.48)	47 (4.37)	39 (3.62)
20" x 20" x 3/8" (508 x 508 x 10 mm)	518 (48.1)	259 (24.1)	173 (16.1)	130 (12.1)	87 (8.08)	65 (6.04)	52 (4.83)	44 (4.09)
24" x 24" x 3/8" (610 x 610 x 10 mm)	621 (57.7)	311 (28.9)	207 (19.2)	156 (14.5)	104 (9.66)	78 (7.25)	63 (5.85)	52 (4.83)
32" x 32" x 3/8" (812 x 812 x 10 mm)	828 (76.9)	414 (38.5)	276 (25.6)	207 (19.2)	138 (12.8)	104 (9.66)	83 (7.71)	69 (6.41)

Approximate Coverage* in sq. ft. (m²) per 25 lbs. (11.3 kg)

Tile Size	Grout Joint Width							
	1/16" (1.5 mm)	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)	3/4" (19 mm)
1" x 1" x 1/4" (25 x 25 x 6 mm)	97 (9.01)	49 (4.55)	33 (3.07)	25 (2.32)	17 (1.58)	13 (1.21)	10 (0.93)	9 (0.84)
2" x 2" x 1/4" (50 x 50 x 6 mm)	194 (18.0)	97 (9.01)	65 (6.04)	49 (4.55)	33 (3.07)	25 (2.32)	20 (1.86)	17 (1.58)
3" x 3" x 1/4" (75 x 75 x 6 mm)	291 (27.0)	146 (13.6)	97 (9.01)	73 (6.78)	49 (4.55)	37 (3.44)	30 (2.79)	25 (2.32)
4" x 8" x 1/2" (100 x 200 x 12 mm)	259 (24.1)	130 (12.1)	87 (8.08)	65 (6.04)	44 (4.09)	33 (3.07)	26 (2.42)	22 (2.04)
4-1/4" x 4-1/4" x 1/4" (108 x 108 x 6 mm)	413 (38.4)	207 (19.2)	138 (12.8)	104 (9.66)	69 (6.41)	52 (4.83)	42 (3.90)	35 (3.25)
6" x 6" x 1/4" (150 x 150 x 6 mm)	582 (54.1)	291 (27.0)	194 (18.0)	146 (13.6)	97 (9.01)	73 (6.78)	59 (5.48)	49 (4.55)
6" x 6" x 1/2" (150 x 150 x 12 mm)	291 (27.0)	146 (13.6)	97 (9.01)	73 (6.78)	49 (4.55)	37 (3.44)	30 (2.79)	25 (2.32)
6" x 24" x 3/8" (150 x 610 x 10 mm)	621 (57.7)	311 (28.9)	207 (19.2)	156 (14.5)	104 (9.66)	78 (7.25)	63 (5.85)	52 (4.83)
8" x 8" x 3/8" (200 x 200 x 10 mm)	518 (48.1)	259 (24.1)	173 (16.1)	130 (12.1)	87 (8.08)	65 (6.04)	52 (4.83)	44 (4.09)

**Ultracolor
Plus FA**



Ultracolor Plus FA



12" x 12" x 3/8" (300 x 300 x 10 mm)	776 (72.1)	388 (36.0)	259 (24.1)	194 (18.0)	130 (12.1)	97 (9.01)	78 (7.25)	65 (6.04)
12" x 24" x 3/8" (300 x 600 x 10 mm)	1,035 (96.2)	518 (48.1)	345 (32.1)	259 (24.1)	173 (16.1)	130 (12.1)	104 (9.66)	87 (8.08)
13" x 13" x 3/8" (330 x 330 x 10 mm)	841 (78.1)	421 (39.1)	281 (26.1)	211 (19.6)	141 (13.1)	106 (9.85)	85 (7.90)	71 (6.60)
18" x 18" x 3/8" (457 x 457 x 10 mm)	1,164 (108)	582 (54.1)	388 (36.0)	291 (27.0)	194 (18.0)	146 (13.6)	117 (10.9)	97 (9.01)
20" x 20" x 3/8" (508 x 508 x 10 mm)	1,294 (120)	647 (60.1)	432 (40.1)	324 (30.1)	216 (20.1)	162 (15.1)	130 (12.1)	108 (10.0)
24" x 24" x 3/8" (610 x 610 x 10 mm)	1,552 (144)	776 (72.1)	518 (48.1)	388 (36.0)	259 (24.1)	194 (18.0)	156 (14.5)	130 (12.1)
32" x 32" x 3/8" (812 x 812 x 10 mm)	2,069 (192)	1,035 (96.2)	690 (64.1)	518 (48.1)	345 (32.1)	259 (24.1)	207 (19.2)	173 (16.1)

* 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 to determine the amount of product needed for project criteria not shown.

RELATED DOCUMENTS

Technical bulletin: "How to remove grout haze"***

Technical bulletin: "Installing tile in hot weather"***

Reference guide: "Tiling and grouting instructions"***

Brochure: "Grout troubleshooting guide"***

** At www.mapei.com

Refer to the 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 meets the health and well-being requirements of product certification programs, contact the MAPEI Sustainability Team at 1-800-992-6273.

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Before using, the user must determine the suitability of our products for the intended use,

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We proudly support the following industry organizations:



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Services in Mexico

0-1-800-MX-MAPEI (0-1-800-696-2734)

Edition Date: June 4, 2019

MK 3000144 (19-1770)

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