

Ultracolor Plus Max

High-Performance, Rapid-Setting Grout with
Maximized Color Depth and Color Consistency



DESCRIPTION

Ultracolor® Plus Max is an ultra premium, fast-setting, polymer-modified, nonshrinking grout that offers rich and vibrant colors with maximized color depth and color consistency. This fine-aggregate grout can be used for joint widths from 1/16" to 3/4" (1.5 mm to 19 mm). *Ultracolor Plus Max* includes DropEffect™ technology for reduced surface absorption, helping to repel water, dirt and grime from penetrating grout joints. It is also specially formulated with MAPEI's High-Hydrated Cement Technology (HCT™) to provide advantages over traditional grout, such as eliminating efflorescence and increasing stain resistance.

FEATURES AND BENEFITS

- Maximized color depth
- Maximized color consistency
- Less water required when mixing and washing
- Easier workability and cleaning
- Fine aggregate for use in joint widths 1/16" to 3/4" (1.5 to 19 mm)
- Fortified with MAPEI's BioBlock® technology

INDUSTRY STANDARDS AND APPROVALS

- ISO 13007: Classification CG2WAF
- ANSI: Meets or exceeds A118.6 and A118.7 industry standards
- ASTM G21: Meets or exceeds the standard for mold and mildew resistance

WHERE TO USE

- Interior/exterior commercial and residential installations
- For grouting dimensional stone, slate, granite, stone agglomerates and most types of ceramic, ceramic mosaic, quarry, brick paver, porcelain, glass and clay tiles
- Submerged installations such as swimming pools, spas, water features and fountains, after 72 hours of curing
- For joint widths from 1/16" to 3/4" (1.5 to 19 mm)

LIMITATIONS

- Do not use in heavy industrial installations such as commercial kitchens, breweries, dairies, and meat processing plants. Instead, use an appropriate MAPEI epoxy grout; see the respective Technical Data Sheet (TDS) for details.
- When grouting in temperatures above 85°F (29°C), see the section below titled "Grouting in hot weather and with high-absorption tiles" as well as the technical bulletin "Installing tile in hot weather" at www.mapei.com, or consult MAPEI's Technical Services Department.

Consult MAPEI's Technical Services Department for installation recommendations regarding 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 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 Max*.
- 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 reference guide "Surface preparation requirements" for Tile & Stone Installation Systems 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 Max* with cool, clean water only. Do not mix with grout additives. Mix by using the following grout-to-water proportions:
 - *Ultracolor Plus Max* powder: 10 lbs. (4.54 kg)
 - Water: 0.85 to 0.95 U.S. qts. (0.80 to 0.90 L)
4. Pour the required measured amount of water into a clean mixing container. Gradually add the proportionate amount of *Ultracolor Plus Max* 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.
5. Mix thoroughly with a low-speed mixer (at about 350 rpm) for 3 to 4 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 85°F (29°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 Max* 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 at a 90-degree angle to the face of the tile and pulling diagonally to the joints.
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. Allow *Ultracolor Plus Max* to firm up in the joints sufficiently to avoid damaging the grout surface – usually in 15 to 30 minutes at 73°F (23°C) – but this time element depends upon the temperature, humidity and absorption rate of the tile/stone. Nonvitreous wall tile that absorbs water quickly requires less time for grout to firm up – only 5 to 10 minutes after installation.
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. Given the intensity and depth of colors offered in *Ultracolor Plus Max*, use of a sealer is highly recommended to ensure that the color is protected and will maintain the depth of color. MAPEI recommends using two coats of its *UltraCare*® Grout Sealer at least 24 hours after grouting.
16. Wash tools immediately with fresh water.
17. 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.
- Keep the installation free from foot traffic for at least 3 hours after grouting.
- 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 grouts are produced to the highest quality of standards. To maintain a clean tile surface, use a neutral-pH cleaner such as MAPEI's *UltraCare* Concentrated Tile & Grout 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.

GROUTING IN HOT WEATHER AND WITH HIGH-ABSORPTION TILES

When *Ultracolor Plus Max* is being installed in hot weather – between 85°F and 95°F (29°C and 35°C) – the following 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 the 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 grout from the tile surface as possible for easier cleanup.
- Complete the initial wash once skinning or drying of grout residue on the tile surface appears.
- Use tenting when grouting exterior jobsites to minimize sun exposure.
- Do not retemper the grout by adding additional water.
- You can remix the grout if the grout begins to set up. No additional water should be 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	Meets or exceeds standard
ANSI A118.7 – shrinkage	< 0.20% at 27 days	Meets or exceeds standard
ANSI A118.7 – tensile strength	500 psi (3.45 MPa) at 28 days	Meets or exceeds standard
ANSI A118.7 – water absorption	< 5% (50% relative humidity to immersion)	Meets or exceeds standard
ANSI A118.7 – flexural strength	1,000 psi (6.90 MPa) at 28 days	Meets or exceeds standard

Shelf Life and Product Characteristics

before mixing

Available colors	117 Pure White 118 Jet Black
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: 0.85 to 0.95 U.S. qts. (0.80 to 0.90 L) water
VOCs (Rule #1168 of California's SCAQMD)	0 g per L
Working time*	30 minutes to 1 hour
Application temperature range	50°F and 95°F (10°C and 35°C)
Curing time*	3 days

* Working time 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)	37 (3.44)	19 (1.77)	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)	74 (6.87)	37 (3.44)	25 (2.32)	19 (1.77)	13 (1.21)	10 (0.93)	8 (0.74)	7 (0.65)
4" x 8" x 1/2" (100 x 200 x 12 mm)	98 (9.10)	49 (4.55)	33 (3.07)	25 (2.32)	17 (1.58)	13 (1.21)	10 (0.93)	9 (0.84)
6" x 6" x 1/4" (150 x 150 x 6 mm)	220 (20.4)	110 (10.2)	74 (6.87)	55 (5.11)	37 (3.44)	28 (2.60)	22 (2.04)	19 (1.77)
6" x 6" x 1/2" (150 x 150 x 12 mm)	110 (10.2)	55 (5.11)	37 (3.44)	28 (2.60)	19 (1.77)	14 (1.30)	11 (1.02)	10 (0.93)
6" x 24" x 3/8" (150 x 610 x 10 mm)	235 (21.8)	118 (11.0)	79 (7.34)	59 (5.48)	40 (3.72)	30 (2.79)	24 (2.23)	20 (1.86)
6" x 36" x 3/8" (150 x 914 x 10 mm)	251 (23.3)	126 (11.7)	84 (7.80)	63 (5.85)	42 (3.90)	32 (2.97)	26 (2.42)	21 (1.95)
8" x 8" x 3/8" (200 x 200 x 10 mm)	196 (18.2)	98 (9.10)	66 (6.13)	49 (4.55)	33 (3.07)	25 (2.32)	20 (1.86)	17 (1.58)
12" x 12" x 3/8" (300 x 300 x 10 mm)	293 (27.1)	147 (13.7)	98 (9.10)	74 (6.87)	49 (4.55)	37 (3.44)	30 (2.79)	25 (2.32)
12" x 24" x 3/8" (300 x 600 x 10 mm)	391 (36.3)	196 (18.2)	131 (12.2)	98 (9.10)	66 (6.13)	49 (4.55)	40 (3.72)	33 (3.07)
18" x 18" x 3/8" (457 x 457 x 10 mm)	440 (40.9)	220 (20.4)	147 (13.7)	110 (10.2)	74 (6.87)	55 (5.11)	44 (4.09)	37 (3.44)

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)	92 (8.55)	46 (4.27)	31 (2.88)	23 (2.14)	16 (1.49)	12 (1.11)	10 (0.93)	8 (0.74)
2" x 2" x 1/4" (50 x 50 x 6 mm)	183 (17.0)	92 (8.55)	61 (5.67)	46 (4.27)	31 (2.88)	23 (2.14)	19 (1.77)	16 (1.49)
4" x 8" x 1/2" (100 x 200 x 12 mm)	244 (22.7)	122 (11.3)	82 (7.62)	61 (5.67)	41 (3.81)	31 (2.88)	25 (2.32)	21 (1.95)
6" x 6" x 1/4" (150 x 150 x 6 mm)	549 (51.0)	275 (25.5)	183 (17.0)	138 (12.8)	92 (8.55)	69 (6.41)	55 (5.11)	46 (4.27)
6" x 6" x 1/2" (150 x 150 x 12 mm)	275 (25.5)	138 (12.8)	92 (8.55)	69 (6.41)	46 (4.27)	35 (3.25)	28 (2.60)	23 (2.14)
6" x 24" x 3/8" (150 x 610 x 10 mm)	586 (54.4)	293 (27.2)	196 (18.2)	147 (13.7)	98 (9.10)	74 (6.87)	59 (5.48)	49 (4.55)
6" x 36" x 3/8" (150 x 914 x 10 mm)	628 (58.3)	314 (29.2)	210 (19.5)	157 (14.6)	105 (9.75)	79 (7.34)	63 (5.85)	53 (4.92)
8" x 8" x 3/8" (200 x 200 x 10 mm)	488 (45.3)	244 (22.7)	163 (15.1)	122 (11.3)	82 (7.62)	61 (5.67)	49 (4.55)	41 (3.81)
12" x 12" x 3/8" (300 x 300 x 10 mm)	732 (68.0)	366 (34.0)	244 (22.7)	183 (17.0)	122 (11.3)	92 (8.55)	74 (6.87)	61 (5.67)
12" x 24" x 3/8" (300 x 600 x 10 mm)	976 (90.7)	488 (45.3)	326 (30.3)	244 (22.7)	163 (15.1)	122 (11.3)	98 (9.10)	82 (7.62)
18" x 18" x 3/8" (457 x 457 x 10 mm)	1,098 (102)	549 (51.0)	366 (34.0)	275 (25.5)	183 (17.0)	138 (12.8)	110 (10.2)	92 (8.55)

*** 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

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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