



MAPEI Flexcolor 3D™

Ready-to-Use, Translucent Grout with an “Iridescent Effect” Finish



DESCRIPTION

MAPEI Flexcolor 3D is a professional-grade, ready-to-use (RTU) translucent specialty grout with an “iridescent effect” finish. It is offered in 10 designer colors with translucent characteristics that not only reflect but also refract light. This allows the grout to transition in color to complement the tile color. The “translucent effect” is most noticeable with the color Crystal Moon (#201), while the other nine colors exhibit a more pronounced “iridescent effect.”

MAPEI Flexcolor 3D is also formulated for commercial and residential interior installations of porcelain, ceramic, glass and natural-stone tiles. Plus, the dense surface structure of the grout helps to prevent water-based stains on the grout surface.

MAPEI Flexcolor 3D is formulated with the latest innovation in recycled glass-bead aggregate, which ensures color consistency, ease of cleanability and improved workability. In addition, this grout can be used on sensitive tile surfaces once tested, requires no sealer and cures naturally from evaporation.

Comparison testing of MAPEI Flexcolor 3D versus traditional Portland-cement grout has verified that MAPEI Flexcolor 3D requires 65% less time to install than powder grouts.

FEATURES AND BENEFITS

- Stain- and chemical-resistant grout formulation with no sealing required
- Easy cleanability, color consistency and improved workability
- Dries to a hard, uniform color surface in 24 hours and will not stain surfaces
- 70% recycled content for Green Squared Certification (Level 3)
- Nonsag formulation for vertical backsplashes

- Crack-resistant and shrinkage-controlled formulation, with no efflorescence
- BioBlock® technology for mold and mildew resistance
- Ready-to-use straight from the pail, with no water required
- Available in a color palette matching the most popular glass mosaic designs

INDUSTRY STANDARDS AND APPROVALS

- ANSI: Although ready-to-use grouts currently do not have ANSI requirements, MAPEI Flexcolor 3D meets or exceeds specific tests in ANSI A118.3 and A118.6 covering other grout types.

LEED v4 Points Contribution

LEED Points

Green Squared (ANSI A138.1 – 2011 v2) for Ceramic Tile, Glass Tile and Tile Installation Materials*	1 point
Health Product Declaration (HPD)*	Up to 2 points

* 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.

Additional Green Certifications

- CRI Green Label Plus #GLP01646. Refer to the CRI's Website at www.carpet-rug.org for additional information.
- Living Building Challenge (LBC) Red List Free: This product has been verified per the most current Red List on the LBC's Website.

WHERE TO USE

- For grout joints from 1/16" to 1/2" (1,5 to 12 mm)
- Use for grouting interior floors, walls, countertops and backsplashes.



- Use for glass tile/mosaics as well as porcelain, ceramic and natural-stone tile (such as granite, travertine, slate, marble and polished marble), quarry and cement-based terrazzo.
- All tiles should conform to ANSI 137.1 or ANSI 137.2 Glass Tile Standard; otherwise, see tile manufacturers for details and recommendations.
- Use for grouting intermittent wet conditions such as shower floors, bathtub surrounds and shower walls.
- Use for interior commercial and residential installations under Res 1 & 2 and Com 1 & 2 per TCNA Environmental Classifications.
- Use for interior floors and walls as well as exterior walls.
- Use for groutable luxury vinyl tile (LVT) and luxury vinyl plank (LVP).
- Concrete surfaces should be dry, fully cured and free of hydrostatic pressure and/or excessive moisture vapor emission rates (MVER). Do not use when the MVER exceeds 5 lbs. per 1,000 sq. ft. (2,27 kg per 92,9 m²) per 24 hours as measured with the calcium chloride test kit (per the procedure outlined in ASTM F1869), or greater than 80% relative humidity as measured with a moisture probe test (per the procedure outline in ASTM F2170).
- Before grouting, make sure that the tiles are firmly set and the adhesive or mortar is completely dry. MAPEI's *Adesilex™ P10* setting mortar is recommended for setting tile that will be grouted with *MAPEI Flexcolor 3D*. For color-coated glass tile and mosaics, knock down the trowel ridges to ensure that they do not show through translucent tiles.
 - For setting clear glass tiles on an opaque substrate such as Durock, *Adesilex P10* is recommended.
 - For setting clear glass tiles on a clear substrate like Plexiglass or acrylic with or without backlighting of the tiles, a clear adhesive is recommended to accentuate the true “chameleon effect” from *MAPEI Flexcolor 3D*. To maximize the effect for this design, use *MAPEI Flexcolor 3D* color Crystal Moon (#201).

LIMITATIONS

- Use only at temperatures between 50°F and 95°F (10°C and 35°C). Drying time will vary depending on temperature, humidity, tile porosity and grout joint depth/width.
- *MAPEI Flexcolor 3D* cures faster in lower humidity conditions (less than 50% humidity is ideal).
- Do not use in water submersion installations such as pools and hot tubs.
- *MAPEI Flexcolor 3D* is not recommended for installation in steam rooms or saunas.
- Not for use over concrete slabs with high moisture emission rates
- Do not use in areas exposed to continuous high surface temperatures (greater than or equal to 140°F [60°C]), such as areas near fireplaces or wood stoves.
- Some types of sensitive tiles such as glass mosaic or marble can be permanently stained, scratched, dulled or damaged when grouting. Always test the grout on a separate sample area before grouting to determine the suitability of the tile with the grout color selected.
- Do not use for distressed or tumbled travertine tiles if no grout is desired in the pits of these tiles.
- Do not use with pebble stone mosaics, irregularly shaped tile or stone, or any time the grout joint width or depth exceeds 1/2" (12 mm).
- Do not use for commercial kitchen floors or environments where “no-rinse” enzymatic cleaners will be used. For heavy industrial installations where fatty acids are present, such as commercial kitchens, use MAPEI's *Kerapoxy® IEG CQ*.
- Remove all tile spacers.
- Grout joints must be clean and free of standing water, dust, dirt and foreign matter. Clean the tile surface thoroughly to remove dust, dirt and other contaminants that may cause grout discoloration.
- Remove excess adhesive or mortar from the joint area so that 2/3 of the tile depth is left available for grouting.

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.

- No mixing is required.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation. Using consistent application procedures will produce consistent results.

For floors (horizontal): To aid in spreading the grout, slightly moisten the tile surface with a damp grout sponge just before application. Do not leave standing or puddling water on the tile surface.

For walls (vertical): Do not pre-wet the tile surface.

1. Force the grout into the joints with a medium- to hard-rubber float held at a 45-degree angle to the tile surface.
2. Make sure all joints are well-compacted and are free of voids and gaps.

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

SURFACE PREPARATION

- Mortar beds should be cured for at least 7 days before tiling.

3. Remove excess grout from the tile surface, holding the float at an almost 90-degree angle to the surface and 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. Use MAPEI's *UltraCare*™ Grout Release when grouting glass tile with "mixed media" inserts such as natural stone, porcelain and aluminum, to facilitate the cleaning and to minimize the formation of grout haze on the tile.

CLEANUP

1. Grout small areas of between 5 to 10 sq. ft. (0,46 to 0,93 m²) at a time, and immediately complete the initial wash after each section. Do not exceed 5 minutes of grouting before completing your initial wash.
2. At all times using a wrung-out sponge, move across the tile surface in a circular motion with light pressure to loosen grout and to shape the joints. Then drag a clean, wrung-out sponge diagonally across the tile joints, applying slight pressure to remove residue. Use one side of the sponge for each pass over the tile, rinsing the sponge after the second pass.
3. For mosaic tile with natural-stone inserts and mixed-media designs with metallic inserts, use a wrung-out scrubpad first to loosen the grout and shape the joints. Next, follow with a wrung-out sponge to remove excess grout as detailed in Step 2.

Note that under certain conditions, a milky film can appear on the grout surface. This film will dissipate in 20 to 30 minutes after the washing step is completed. *MAPEI Flexcolor 3D* will develop its color and appearance throughout the 24 hours of curing time.

Also note that, in order to minimize possible defects mainly limited to horizontal installations, use of a minimal amount of water is highly recommended. If defects do occur, wait 24 hours and then fill any imperfections with grout. Follow Step 2 above when washing these filled areas of the grout joint.

4. Change the rinse water bucket frequently to prevent the development of a haze on the tile surface.
5. If residue is observed on the tile surface, a final wash can be performed (if needed) about 1 hour after the initial wash. If needed in the cleaning process, add 1 U.S. oz. (30 mL) of a clear dishwashing soap to a pail containing 3 U.S. gals. (11,4 L) of clean water; then use a clean, white, wrung-out scrubpad to loosen grout residue and a moistened sponge to remove any remaining residue.
6. After 24 hours, the use of a glass cleaning product is acceptable. Use a clean microfiber or terrycloth rag with the cleaning product to remove any haze film on the glass tile surface. Minimize direct contact on the grout joints whenever applying the cleaning product.

7. If joints are not fully flush, *MAPEI Flexcolor 3D* can be reapplied after 24 hours of drying by repeating steps 1 through 5. The product will bond to itself.
8. Clean tools and the surface with fresh water while the product is wet.

PROTECTION AND MAINTENANCE

- Light foot traffic is permissible 24 hours after grouting.
- To ensure stain resistance, allow 3 days before water exposure.
- Protect the product from freezing. If the product does freeze, allow it to return to room temperature before use. *MAPEI Flexcolor 3D* was tested in the cured state and passed 25 cycles of freeze/thaw testing for 16 hours at 0°F (-18°C) and for 8 hours at 74°F (23°C).
- If haze residue or "picture framing" is experienced after installation, use MAPEI's *UltraCare* Epoxy Grout Haze Remover and *UltraCare* Heavy-Duty Stone, Tile & Grout Cleaner. Note: Do not allow *UltraCare* Epoxy Grout Haze Remover to sit on the surface for more than 20 minutes before removal.
- Although sealing is not required, MAPEI's *UltraCare* cleaner category can be used for care and maintenance of the grout surface. MAPEI's *UltraCare* water-based products are fully compatible with *MAPEI Flexcolor 3D*. Before applying any *UltraCare* products, wait for 6 to 7 days after the installation of *MAPEI Flexcolor 3D*.

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ANSI Specification

Test Method	Specification Standard	Test Results
ANSI A118.3 – chemical resistance	Conforms to ASTM C267	Pass (see the Chemical Resistance table below)
ANSI A118.3 – vertical sag in joints	No noticeable change in joint shape	Pass
ANSI A118.3 – cleanability	ANSI A118.3	Pass
ANSI A118.6* – compressive strength	Cement grouts \geq 3,000 psi (20,7 MPa) at 28 days	3,861 psi (26,6 MPa)

* Modified ANSI method: 28 days at 73°F (23°C) in a grout joint

Chemical Resistance (ASTM C267)**

Ammonia	Pass
Bleach	Pass
Potassium hydroxide, 3%	Pass
Acetic acid, 3%	Pass
Acetic acid, 10%	Pass
Ammonium chloride	Pass
Citric acid, 3%	Pass
Citric acid, 10%	Pass
Lactic acid	Pass
Peanut oil	Pass
Olive oil	Pass
Phosphoric acid, 3%	Pass
Phosphoric acid, 10%	Pass
Sulfamic acid, 3%	Pass
Sulfamic acid, 10%	Pass
Hydrochloric acid, 3%	Pass
Hydrochloric acid, 10%	Pass
Sulfuric acid, 3%	Pass

** Testing conducted after 28-day full cure, with 24-hour full immersion

Product Performance Properties

Laboratory Tests	Results
Hardness at 72 hours (Shore A)	83
Foot traffic rating (ASTM C627)	Medium commercial rating; passes 10 cycles
VOCs (Rule #1168 of California's SCAQMD)	15 g per L
VOCs (Section 01350 of California's CDPH)	Passed
Water absorption – 14 days at 73°F (23°C) and 2 days in water	Pass

Shelf Life and Product Characteristics

Shelf life	18 months when stored in original, unopened packaging at 73°F (23°C) and 50% relative humidity
Colors	Available in 10 designer colors: Crystal Moon (#201), Frosted Glass (#202), Star Dust (#203), Pure Steel (#204), Frozen Fire (#205), Golden Rose (#206), Champagne Bubbles (#207), Copper Dawn (#208), Morning Dew (#209) and Forever Sky (#210)
Odor	Slight latex odor, with no ammonia smell

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

Protect from light foot traffic	24 hours
Protect from normal foot traffic	48 hours
Protect from commercial/heavy foot traffic	6 to 7 days

[†] Protection and curing times will vary depending on ambient temperature, substrate temperature and humidity.

Packaging

Size
Pail: 0.5 U.S. gal. (1,89 L) – including sponge and white scrubpad

Approximate Coverage^{††} per 0.5 U.S. gal. (1,89 L)

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)
1" x 1" x 1/4" (25 x 25 x 6 mm)	26 sq. ft. (2,42 m ²)	13 sq. ft. (1,21 m ²)	9 sq. ft. (0,84 m ²)	6.5 sq. ft. (0,60 m ²)	4.5 sq. ft. (0,42 m ²)	3.2 sq. ft. (0,30 m ²)
1" x 2" x 1/4" (25 x 50 x 6 mm)	34 sq. ft. (3,16 m ²)	17 sq. ft. (1,58 m ²)	11.5 sq. ft. (1,07 m ²)	8.5 sq. ft. (0,79 m ²)	5.7 sq. ft. (0,53 m ²)	4.3 sq. ft. (0,40 m ²)
2" x 2" x 1/4" (50 x 50 x 6 mm)	51 sq. ft. (4,74 m ²)	26 sq. ft. (2,42 m ²)	17 sq. ft. (1,58 m ²)	12.8 sq. ft. (1,19 m ²)	8.5 sq. ft. (0,79 m ²)	6.4 sq. ft. (0,59 m ²)
3" x 6" x 3/8" (75 x 150 x 10 mm)	70 sq. ft. (6,50 m ²)	34 sq. ft. (3,16 m ²)	23 sq. ft. (2,14 m ²)	17 sq. ft. (1,58 m ²)	11.5 sq. ft. (1,07 m ²)	8.5 sq. ft. (0,79 m ²)
4" x 12" x 3/8" (100 x 300 x 10 mm)	100 sq. ft. (9,29 m ²)	51 sq. ft. (4,74 m ²)	34 sq. ft. (3,16 m ²)	26 sq. ft. (2,42 m ²)	17 sq. ft. (1,58 m ²)	12.8 sq. ft. (1,19 m ²)
6" x 24" x 3/8" (150 x 610 x 10 mm)	160 sq. ft. (14,9 m ²)	80 sq. ft. (7,43 m ²)	55 sq. ft. (5,11 m ²)	40 sq. ft. (3,71 m ²)	27 sq. ft. (2,51 m ²)	20 sq. ft. (1,85 m ²)
12" x 12" x 3/8" (300 x 300 x 10 mm)	200 sq. ft. (18,6 m ²)	105 sq. ft. (9,75 m ²)	68 sq. ft. (6,32 m ²)	51 sq. ft. (4,74 m ²)	34 sq. ft. (3,16 m ²)	26 sq. ft. (2,42 m ²)

^{††} 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.

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Refer to the SDS for specific data related to health and safety as well as product handling.

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 or 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.**

We proudly support the following industry organizations:



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