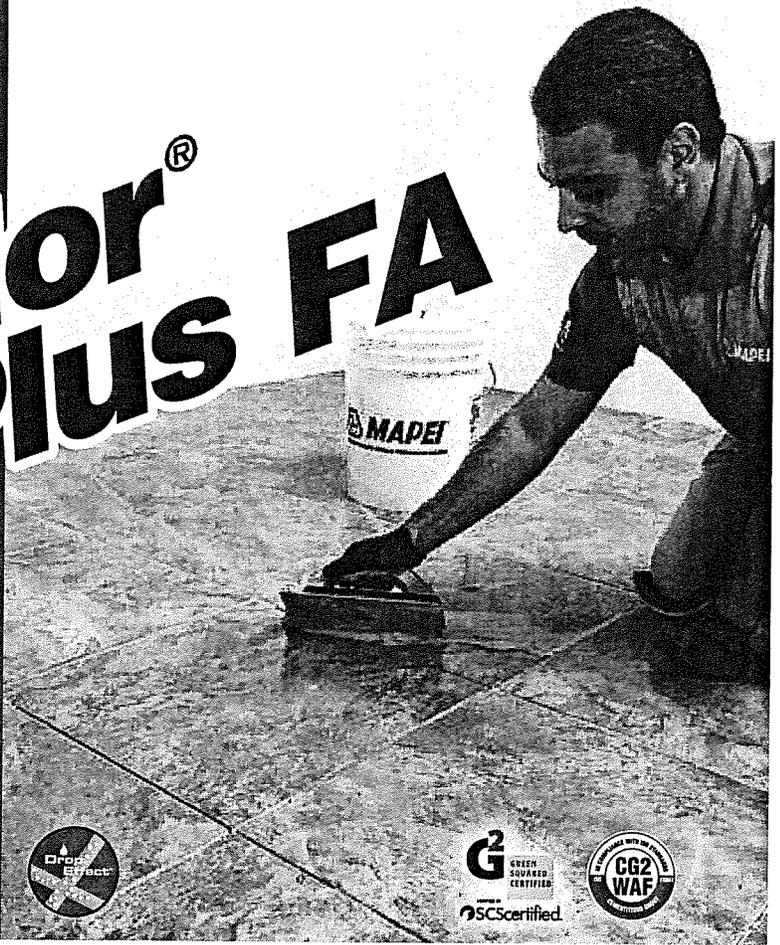




# Ultracolor<sup>®</sup> Plus FA

**Rapid-Setting, "All-in-One"  
Grout Replacement for  
Sanded and Unsanded Grouts**



## DESCRIPTION

*Ultracolor Plus FA* with DropEffect™ technology is an ultra premium, fine-aggregate, fast-setting, polymer-modified, color-consistent, nonshrinking, efflorescence-free grout for joint widths from 1/16" to 3/4" (1,5 to 19 mm). DropEffect reduces surface absorption to help repel water, dirt and grime from penetrating grout joints. *Ultracolor Plus FA* is specially formulated with MAPEI's High-Hydrated Cement Technology (HCT™) to eliminate the common problems related to Portland-cement grout, such as color consistency and efflorescence. Along with offering higher polymer content, HCT reduces absorption and increases stain resistance when compared with standard-performance cement grouts. *Ultracolor Plus FA* is formulated with 10% recycled content and meets the ANSI A138.1 specification for GreenSquared certification.

## FEATURES AND BENEFITS

- Fine aggregate (FA) allows for narrow joint widths and improved cleanability
- No efflorescence (free of Portland cement)
- Easy to install and stain-resistant
- No sealer required

## INDUSTRY STANDARDS AND APPROVALS

- ISO 13007: Classification CG2WAF
- ANSI: Meets or exceeds ANSI A118.6 and A118.7 industry standards
- SCS GreenSquared: Certified per ANSI A138.1

LEED v3 Points Contribution

LEED Points

MR Credit 5, Regional Materials\* ..... Up to 2 points

IEQ Credit 4.1, Low-Emitting Materials – Adhesives & Sealants ..... 1 point

IEQ Credit 4.3, Low-Emitting Materials – Flooring Systems ..... 1 point

LEED v4 Points Contribution LEED Points

MR Credit Material Ingredient Reporting – Health Product Declaration (HPD) ..... 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.*

## WHERE TO USE

- Commercial and residential construction suitable for both interior and exterior installations
- For grouting dimensional stone, slate, granite, stone agglomerates and most types of ceramic, ceramic mosaic, quarry, brick paver, porcelain, glass and clay tiles
- For application in submerged conditions (swimming pools, spas, water features and fountains), allow for 72 hours of curing time.
- For use where grout will be exposed to foot traffic within 3 to 4 hours
- For joint widths from 1/16" to 3/4" (1,5 to 19 mm)

## LIMITATIONS

- 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



# Ultracolor<sup>®</sup> Plus FA

Plus SB Stone & Porcelain Tile Sealer. Follow the directions provided in the *UltraCare* Maintenance Guide.

- 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 Technical Data Sheet [TDS] for details).
- When grouting in temperatures above 80°F (26°C), see the Technical Bulletins at [www.mapei.com](http://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.
- Before grouting, make sure that the tiles or stones are firmly set and that 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 MAPEI's "Surface Preparation Requirements" document in the Reference & Installation Guides section of the Tile & Stone Installations Systems page on MAPEI's Website.

## MIXING

Choose all appropriate safety equipment before use. 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>Water</u>	<u>Ultracolor Plus FA powder</u>
1 to 1.1 U.S. qts. (0,95 to 1,04 L)	10 lbs. (4,54 kg)
2.6 to 2.8 U.S. qts. (2,46 to 2,65 L)	25 lbs. (11,3 kg)

4. Pour the required measured amount of clean, cool 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.
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 air entrapment from prolonged mixing, which will shorten the pot life.
7. Allow the grout to sit ("slake") in the container for about 2 to 3 minutes.
8. Remix for about 30 seconds without adding more liquid or powder.
9. Wash tools immediately with fresh water.

## 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). 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. Force *Ultracolor Plus FA* 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 *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. Allow the *Ultracolor Plus FA* 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. 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. 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 Bulletins at [www.mapei.com](http://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 72 hours 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.

**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 <sup>3</sup>
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 100°F (10°C and 38°C)
Curing time*	72 hours

\* 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)

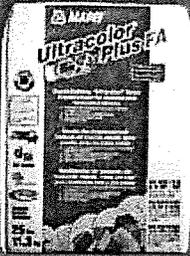
Approximate Coverage\*

Per 10 lbs. (4,54 kg). Coverages in sq. ft. (m <sup>2</sup> ).								
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)

Per 25 lbs. (11,3 kg). Coverages in sq. ft. (m <sup>2</sup> ).								
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)

**Ultracolor<sup>®</sup>  
Plus FA**

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Plus FA**



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)
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](http://www.mapei.com) to determine the amount of product needed for project criteria not shown.

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

## RELATED DOCUMENTS

Technical Bulletin: Grout Cleaning	041101-T*
Grout Troubleshooting Guide	TSIS Reference and Installation Guides*
Technical Bulletin: How to Install Grout in Hot Weather	010404-TB*

\* At [www.mapei.com](http://www.mapei.com)

## 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.**

We proudly support the following industry organizations:



### MAPEI Headquarters of the Americas

1144 East Newport Center Drive  
Deerfield Beach, Florida 33442  
1-888-US-MAPEI (1-888-876-2734) /  
(954) 246-8888

### Technical Services

1-800-992-6273 (U.S. and Puerto Rico)  
1-800-361-9309 (Canada)

### Customer Service

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

### Services in Mexico

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

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PR: 7921 MKT: 16-1236

For the most current BEST-BACKED™ product data and warranty information, visit [www.mapei.com](http://www.mapei.com).

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# RedGard® Waterproofing and Crack Prevention Membrane

## 1 Product Name

RedGard® Waterproofing and Crack Prevention Membrane

## 2 Manufacturer

Custom Building Products  
 Technical Services  
 10400 Pioneer Boulevard, Unit 3  
 Santa Fe Springs, CA 90670  
 Customer Support: 800-272-8786  
 Technical Services: 800-282-8786  
 Fax: 800-200-7765  
 Email: [contactus@cbpmail.net](mailto:contactus@cbpmail.net)  
[custombuildingproducts.com](http://custombuildingproducts.com)

## 3 Product Description

A ready-to-use elastomeric waterproofing membrane for both commercial and residential tile and stone application. Suited for interior and exterior substrates, RedGard® creates a continuous waterproof membrane barrier with outstanding adhesion and reduces crack transmission in tile and stone floors. It bonds directly to clean metal drains, PVC, stainless steel and ABS drain assemblies and can be used as a slab-on-grade moisture vapor barrier under all types of floor coverings.

### Key Features

- Ready to use - Roll it on
- Quick dry formula
- Listed with IAPMO for use as a shower pan liner

### Suitable Substrates

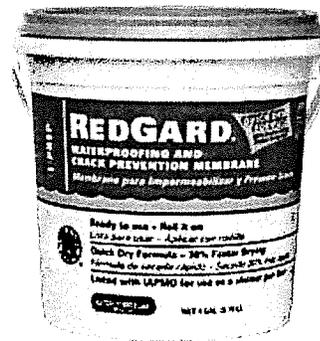
- Concrete, cement mortar, masonry
- Cement Backerboard
- Exterior Plywood and OSB (interior, dry areas only)
- Exterior Decks - Contact Technical Services
- Post-Tension Concrete - Contact Technical Services
- Lightweight Concrete (min. 2000 psi compressive strength)
- Gypsum-Based cement topping (min. 2000 psi compressive strength)
- Existing ceramic tile and resilient flooring

### Composition of Product

RedGard® is a liquid-applied elastomeric waterproofing material that cures to form a monolithic membrane.

### Benefits of Product in the Installation

- Easy to use and can be applied by roller, trowel or airless sprayer
- Rated for extra heavy duty service
- Reduces curing time with quick-dry formula
- Isolates cracks to 1/8" (3 mm)
- Suitable for waterproofing pools, spas and water features
- Meets Uniform Plumbing Code specifications for use as a shower pan liner
- Obtained the Notice of Acceptance (NOA) for Miami-Dade County



### Limitations to the Product

- Do not apply to surfaces that may drop below 40°F (4°C) within 72 hours of application.
- Do not apply over wet surfaces or surfaces subject to hydrostatic pressure.
- Do not use to bridge or cover over existing expansion, control, construction, cold or saw cut joints; use Crack Buster® Pro Membrane for control, cold or saw cut joints.
- Do not use as an adhesive.
- Do not use as a wear surface; the membrane must be covered with tile or other permanent flooring.
- Do not use solvents in conjunction with the membrane

### Packaging

- 1 gallon (3.78 L) pail
- 3.5 gallon (13.2 L) pail

## 4 Technical Data

### Applicable Standards

American National Standards Institute (ANSI) ANSI A108.01, A108.17, A108.13, A118.10 and A118.12 American National Standards for the Installation of Ceramic Tile ASTM International (ASTM)

- ASTM C627 Standard Test Method for Evaluating Ceramic Floor Tile Installation Systems Using the Robinson-Type Floor Tester
- ASTM D638 Standard Test Method for Tensile Properties of Plastics

Tile Council of North America (TCNA) TCNA Handbook for Ceramic Tile Installation, TCNA Method EJ171, F125 & F125A



# CUSTOM®

# RedGard® Waterproofing and Crack Prevention Membrane

## Approvals

RedGard® has tested and complies with Uniform Plumbing Code and International Plumbing Code standards for use as a shower pan liner per IAPMO Research and Testing, Inc., File No. 4244. RedGard® has tested and complies with International Building Code (IBC), International Residential Code (IRC) and International Plumbing Code (IPC) standards for water resistance per ICC Evaluation Service, ESR-413. RedGard® complies with the Product Control Division of the Miami Dade County Building Code Compliance Office for waterproofing standards and has earned a Notice of Acceptance (NOA), File No. 07-1010.16. RedGard® conforms to "safing material" requirements established by the Wisconsin Administrative Code, Chapter Comm 84.30-6f.

## Technical Chart

Property	Test Method	Requirement	Typical Results
Fungus Resistance	A118.10 Section 4.1	No Growth	Pass
Seam Strength	A118.10 Section 4.2	> 8 lbs/" width	16 lbs/2" (7.3 kg/5 cm) width
Breaking Strength	A118.10 Section 4.3	> 170 psi	484 psi (34 kg/cm <sup>2</sup> )
Dimensional Stability	A118.10 Section 4.4	+/- 0.7%	0.05%
Waterproofness	A118.10 Section 4.5	No Water Penetration	Pass at 25 mils dry
Steam Shower Requirement	ASTM E-96 Method E	< 0.5 perms	0.35 perms at 30 mils dry
Shear Bond Strength to Cement Mortar			
Four Week Shear Strength	A118.10 Section 5.5	> 50 psi	267 psi (18.8 kg/cm <sup>2</sup> )
Shear Strength After Water Immersion	A118.10 Section 5.4	> 50 psi	89 psi (6.3 kg/cm <sup>2</sup> )
System Crack Resistance			
Standard Performance	A118.12 Section 5.4	> 1/16" and < 1/8"	Pass at 30 mils dry
High Performance	A118.12 Section 5.4	> 1/8"	Pass at 30 mils dry
Point Load	A118.12 Section 5.2	> 1000 lbs	> 1000 psi
Robinson Test	A118.12 Section 5.3	As Specified	14 Cycles; Extra Heavy

## Environmental Consideration

Custom® Building Products is committed to environmental responsibility in both products produced and in manufacturing practices. Use of this product may contribute to LEED® certification.

## 5 Instructions

### General Surface Prep

**USE CHEMICAL-RESISTANT GLOVES, such as nitrile, when handling product.**

Exterior and wet areas must have proper sloping to drains. All surfaces must be structurally sound, clean, dry and free from contaminants that would prevent a good bond. Newly prepared concrete must be troweled smooth and textured to a fine broom finish and cured for 28 days. Existing surfaces must be scarified and leveled, and all defects must be repaired. Cracks exceeding 1/8" (3 mm) should be treated in accordance with TCNA F125 or TCNA F125A.

### Bonding to Lightweight Cement and Gypsum Surfaces

Lightweight or gypsum-based materials must obtain a minimum of 2000 psi (13.8 MPa) compressive strength at the recommended cure time. The underlayment must be sufficiently dry and properly cured to the manufacturer's specifications for permanent, non-moisture permeable coverings. Surfaces to be covered must be clean, structurally sound and subject to deflection not to exceed the current ANSI standards. Expansion joints must be installed in accordance with local building codes and ANSI/TCNA guidelines. Prime all surfaces to receive RedGard® with properly applied manufacturer's sealer or with a primer coat of RedGard®, consisting of 1 part RedGard®, diluted with 4 parts clean, cool water. In a clean pail, mix at low speed to obtain a lump-free solution. The primer can be brushed, rolled or sprayed to achieve an even coat. Apply the primer coat to the floor at a rate of 300 ft/gallon (7.5 M/L) of reduced material. When dry, apply at least one full coat of RedGard® to the primed area.

### Vapor Barrier

When used as a vapor barrier, apply one full coat (70 sq. ft. per gallon) where vapor transmission is up to 8 lbs. per 1000 sq. ft. per day and two full coats (70 sq. ft. per gallon each coat) where vapor transmission is up to 12 lbs. per 1000 sq. ft. per day. Refer to ASTM F1869 for more information on Vapor Transmission Testing.

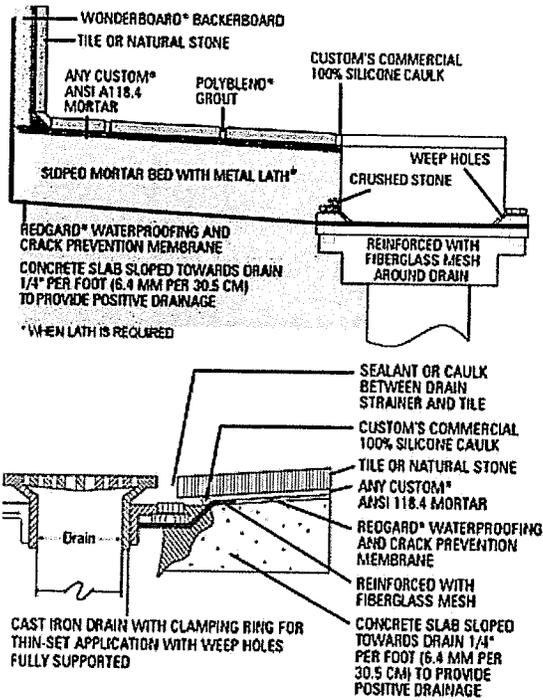
### Movement Joint Placement

Do not bridge joints designed to experience movement. Carry these types of joints through the tile work. Clean the joint and install an open or closed cell-backer rod to the proper depth, as outlined in the Tile Council Handbook, EJ171. Next compress sealant into the joint, coating the sides and leaving the sealant flush with the surface. When the sealant is dry, place bond-breaker tape over the joint. Apply a minimum 3/64" (1.2 mm) of RedGard® over the joint and the substrate, following the instructions provided previously. Install the tile work onto the membrane, but do not bridge the joint. After the tile work is properly set, follow the architect's and manufacturer's instructions to fill the joint with a specified color sealant.



# RedGard® Waterproofing and Crack Prevention Membrane

## Application of Product



## RedGard at Drains

Drains should have a clamping ring with open weep holes for thin-set application. Apply the membrane to the bottom of the flange. The drain should be fully supported, without movement, and should be even with the plane of the substrate. Apply the RedGard membrane around drain. Embed a 12" x 12" (30 x 30 cm) fiberglass mesh into the membrane, making sure it does not obstruct the drainage weep holes. Then apply an additional coat of the membrane and smooth. After curing, clamp the upper flange onto the membrane and tighten. Use a silicone caulk around the flange where the membrane and the upper flange make contact. A toilet flange can be handled in much the same manner.

## RedGard® as Crack Prevention Membrane

Force RedGard® into cracks with the flat side of the trowel, roller or brush. Using a 3/16"-1/4" (5-6 mm) V-notch trowel or 3/8" (9.5 mm) rough textured roller. Use the flat side of the trowel and flatten the ridges to form a continuous, even coat of material. The membrane should extend a minimum of the diagonal measurement of the tile beyond both sides of the crack. Gaps between plywood sheets and where floors meet walls must also be prefilled. For continuous crack isolation, cover the entire substrate with RedGard® applied at a rate of 100 sq. ft. per gallon. To meet the requirements of ANSI A118.12, apply two coats of RedGard at a rate of 50 sq. ft. per gallon each coat.

## RedGard® as General Waterproof Membrane (ANSI 118.10)

Cracks to 1/8" (3 mm) should be prefilled before beginning the waterproofing application. Lightly dampen all porous surfaces. Use a 3/4" (19 mm) rough textured synthetic roller or a 3/16"-1/4" (56 mm) V-notch trowel and heavily precoat the corners and the intersections where the floors and walls meet, extending 6" (15 cm) on either side. For extra protection, embed a 6" (15 cm) wide fiberglass mesh into the membrane for changes of plane and for gaps 1/8" (3 mm) or greater. Apply RedGard at a rate of 110 sq ft per gallon each coat. If using a trowel, spread the material with the trowel held at a 45° angle, and then flattens the ridges. If using a roller, apply a continuous, even film with overlapping strokes. An airless sprayer may be used for the waterproofing application. The sprayer must produce between 1900 - 2300 psi, with a flow rate of 1.0 - 1.5 GPM and must have a tip orifice size of 0.025 - 0.029. Apply a continuous film with overlapping spray. The membrane appearance is pink when wet and dries to a dark red color. It typically takes 1-1.5 hours to turn completely red. After the first coat turns red, inspect the film for integrity and fill any voids or pinholes with additional material. Apply a second coat at right angles to the first coat. To meet the requirements of IAMPO, Two coats should be applied at a rate of 80 sq. ft. per gallon each coat. In all cases the wetfilm thickness should not exceed 125 mils.

## Curing of Product

RedGard® is dry when it turns solid red, with no visible pink color. Typically, drying time is 1-1.5 hours; depending on ambient conditions, drying time can be as much as 12 hours. After the second coat is applied and both coats are fully cured, the application area can be flood tested.

## Protection

If tile or stone will not be set immediately after curing, protect the application from heavy traffic damage. Protect from rain and inclement weather for 72 hours after application. If delays longer than 72 hours are expected, cover the area with felt paper. Care should be taken to prevent the application from becoming soiled or punctured during and after application.

## Tile and Stone Installation

Install tile or stone with a Custom® Building Products polymer-modified mortar that meets ANSI A118.4 or A118.15 standards.

## Cleaning of equipment

Clean tools and hands with water before the material dries. Clean all spray equipment immediately after use.

## Health Precautions

Wear impervious gloves and eye protection while using this product. Avoid contact with eyes or prolonged contact with skin. Wash thoroughly after handling. If eye contact occurs, rinse cautiously with water for several minutes, remove contact lenses if easy to do: continue rinsing. Immediately seek medical advice if symptoms are significant or persist. Do not take internally. KEEP OUT OF REACH OF CHILDREN.

## Conformance to Building Codes

Installation must comply with the requirements of all applicable local, state and federal code jurisdictions.



# RedGard® Waterproofing and Crack Prevention Membrane

## 6 Availability & Cost

Location	Item Code	Size	Color	Package
USA	LQWAF1	1 gallon (3.78 L)	Pink	Pail
USA	LQWAF3	3.5 gallon (13.2 L)	Pink	Pail
Canada	CLLQWAF1	1 gallon (3.78 L)	Pink	Pail
Canada	CLLQWAF3	3.5 gallon (13.2 L)	Pink	Pail

## 7 Product Warranty

Custom® Building Products warrants to the original consumer purchaser that its product shall be free from defects in material and workmanship under normal and proper usage for a period of one year following the date of original purchase. CUSTOM's sole liability under this warranty shall be limited to the replacement of the product. Some states, countries or territories do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty will not extend to any product which has been modified in any way or which has not been used in accordance with CUSTOM's printed instructions. CUSTOM makes no other warranties either expressed or implied. This warranty gives you specific legal rights, and you may have other rights that vary from state to state or from one country/territory to another. This warranty is not transferrable.

When RedGard® Waterproofing and Crack Prevention Membrane is used as a part of a qualifying full installation system of CUSTOM products, the installation can qualify for up to a lifetime system warranty. CUSTOM will repair and/or replace, at its discretion, the affected area of the system. For more information, find details and limitations to this warranty at [custombuildingproducts.com](http://custombuildingproducts.com).

## 8 Product Maintenance

Properly installed product requires no special maintenance. Do not use as a wear surface.

## 9 Technical Services Information

For technical assistance, contact Custom technical services at 800-272-8786 or visit [custombuildingproducts.com](http://custombuildingproducts.com).

## 10 Filing System

Additional product information is available from the manufacturer upon request.

### Related Products

Waterproofing and Anti-Fracture Membrane Mesh



# RedGuard® Waterproofing and Crack Prevention Membrane

## Coverage

Size	Coverage
RedGuard as Crack Prevention Membrane:	
1 Gallon (3.78 L)	100 sq. ft. (9.3 M2)
3.5 Gallon (13.2 L)	350 sq. ft. (32.5 M2)
RedGuard as Crack Prevention Membrane meeting ANSI A118.12	
1 Gallon (3.78 L)	25 sq. ft. (2.3 M2)
3.5 Gallon (13.2 L)	88 sq. ft. (8.2 M M2)
RedGuard as Waterproof Membrane:	
1 Gallon (3.78 L)	55 sq. ft. (5.1 M2)
3.5 Gallon (13.2 L)	192 sq. ft. (17.8 M2)
RedGuard as IAPMO Pan Liner meeting ANSI A118.10:	
1 Gallon (3.78 L)	40 sq. ft. (3.7 M2)
3.5 Gallon (13.2 L)	140 sq. ft. (13 M2)

Chart for estimating purposes. Coverage may vary based on installation practices and jobsite conditions.