

FractureFree® Crack Prevention Membrane

1 Product Name

FractureFree® Crack Prevention Membrane

2 Manufacturer

Custom Building Products
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3 Product Description

Ready-to-use, elastomeric, crack prevention membrane developed for protecting tile floors from cracks due to minor surface movement. Provides anti-fracture protection of up to 1/8" (3 mm) over shrinkage and other nonstructural cracks. Suitable for all interior or exterior commercial and residential tile and stone installations. Easily applied with a roller or trowel. Meets A118.12 for crack isolation membranes.

Key Features

- Convenient - ready to use
- Apply by roller or trowel
- Elastomeric - Isolates cracks in tile and stone floors

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

Limitations to the Product

- Do not apply to surfaces that may go below 40°F (4°C) during the first 72 hours after application, over wet surfaces or surfaces subject to hydrostatic pressure.
- Use where vapor transmission is up to 8 lbs. per 1000 sq. ft. per ASTM F1869; 85% RH per ASTM F2170
- Do not use to bridge or cover over existing expansion, control, construction, cold or saw-cut joints.
- Not for use as an adhesive.
- Not for controlling vertical movement cracks.
- Do not use as a wear surface. Membrane must be covered with tile.
- Do not use solvents in conjunction with membrane.

Packaging

3 1/2 gallon (13.25 L) Pails



4 Technical Data

Applicable Standards

American National Standards Institute (ANSI) ANSI A108.01, A108.17 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
- ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride
- ASTM F2170 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes

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

Approvals

None applicable.



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Technical Chart

Property	Test Method	Requirement	Typical Results
Fungus Resistance	A 118.10 4.1	No Growth	Pass
Seam Strength	A 118.10 4.2	> 8 lbs/ inch width	16 lbs./2 inch (>7.3 kg/5cm) width
Breaking Strength	A 118.10 4.3	> 170 psi	484 psi (34.0 kg/cm ²)
Dimensional Stability	A 118.10 4.4	+/- 0.7%	0.05%
Waterproofness	A 118.10 4.5	No Water Penetration	N/A
Shear Bond Strength to Cement Mortar			
Four Week Shear Strength	A 118.10 5.5	> 50 psi	267 psi (18.8 kg/cm ²)
Shear Strength after Water Immersion	A 118.10 5.4	> 50 psi	N/A
System Crack Resistance			
Standard Performance	A 118.12 5.4	> 1/16" and < 1/8"	Pass
High Performance	A 118.12 5.4	> 1/8"	Pass
Point Load	A 118.12 5.2	> 1000 lbs	> 1000 psi
Robinson Test	A 118.12 5.3	As Specified	Heavy Duty
Sound Transmission Reduction (IIC)	A 118.13 5.3	> 10	N/A

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 Concrete Surfaces

Concrete must be fully cured and accept water penetration. Test by sprinkling water on various areas of the substrate. If water penetrates, then a good bond can be achieved. If water beads, surface contaminants are present and loss of adhesion may occur. The contaminants should be removed before installation. Concrete must be free of efflorescence and not subject to hydrostatic pressure.

Bonding to Plywood Surfaces

Plywood floors must be structurally sound and meet all ANSI and deflection requirements. For questions about proper subfloor installation, call Custom Technical Services.

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 FractureFree Crack Prevention Membrane 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.

Application of Product

Force FractureFree® into cracks with the flat side of a trowel, or a roller or brush. Then, using a 3/16" x 1/4" (5 x 6 mm) V-notch trowel or 3/8" (9.5 mm) rough textured roller, apply additional material onto the substrate. If using a trowel, use the flat side of the trowel and flatten the ridges to form a continuous, even coat of material. Membrane should extend beyond both sides of the crack a minimum of the diagonal measurement of the tile. For continuous crack isolation, cover the entire substrate with FractureFree applied at a rate of 100 sq. ft. per gallon. To meet the requirements of ANSI A118.12, apply two coats of FractureFree at a rate of 50 sq. ft. per gallon each coat.

Curing of Product

The product is beige when wet and it turns a solid mustard color when dry, normally 1.5 to 2 hours. Depending on ambient conditions, drying time can take up to 12 hours.

Tile and Stone Installation

Install tile or stone with a Custom® Building Products polymer-modified mortar that meets ANSI A118.4, A118.15 or A118.11 standards.

Cleaning of equipment

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

Storage

Protect from freezing. Store in a cool, dry area.

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.



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6 Availability & Cost

Item Code	Size	Color	Package
FFM3	3 1/2 gallon (13.25 L)	Beige	Pail

7 Product Warranty

Obtain the applicable **LIMITED PRODUCT WARRANTY** at www.custombuildingproducts.com/product-warranty or send a written request to Custom Building Products, Inc., Five Concourse Parkway, Atlanta, GA 30328, USA. Manufactured under the authority of Custom Building Products, Inc. © 2017 Quikrete International, Inc.

When FractureFree® 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.

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.

10 Filing System

Additional product information is available from the manufacturer upon request.



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Coverage

Size	Min Coverage
3.5 Gallon (13.25 L)	350 sq. ft. (32.5 m ²)

