



Fracture Shield

ANTI-FRACTURE & CRACK ISOLATION MEMBRANE



PACKAGING

- 1 Gallon (3.8L) pails
- 3.5 Gallon (13.3L) pails
- 5 Gallon (18.9L) pails

STORAGE

Store in a cool, dry location at a temperature between 40°F (4°C) and 90°F (32°C). Do not store in direct contact with the ground or concrete. Store out of direct sunlight and protect from weather and other damage

COLOR

White

DRYING & CURING

Dry the freshly applied material for 1 hour before applying a highly polymer modified mortar (such as: M200, M225, M375, M400) for tile or stone installations. Fracture Shield will turn to a flat white when dry. Drying time may vary due to surface and area conditions, ambient temperatures and humidity.

MATERIAL CALCULATOR

Visit the Sienna web site at SiennaProducts.com and click on the "Material Calculator" tab for recommended products and to calculate the amount of materials needed for each project. Always follow all manufacturers' recommendations and warranty information prior to any tile or stone installation.



Sienna Fracture Shield is a ready to use anti-fracture, crack isolation and water resistant membrane, manufactured with a mixture of latex polymers and other proprietary additives to produce a high quality elastomeric barrier that protects tile floors from cracks due to minor surface movement. Fracture Shield is easily applied with a roller, trowel, paint brush or a sprayer, and appears glossy white when wet and becomes a flat white upon drying. Fracture Shield exceeds the requirements for ANSI A118.12 for crack isolation and can be used in residential, commercial, interior and exterior tile and stone applications.

FEATURES	BENEFITS
Anti-Fracture	Prevent Shrinkage or Non-structural Cracks up to 1/8"
Easy to Use	Apply with a Roller, Trowel, Paint Brush or Sprayer
Fast Drying, Installs Quickly	Glossy White When Wet and Becomes a Flat White Upon Drying
Meets ANSI A118.12	Prevents Cracks from Transmitting to Finished Goods

BASIC USES

Sienna Fracture Shield is used on recommended substrates as an anti-fracture and crack isolation membrane used to prevent shrinkage or non-structural cracks up to 1/8" transmitting from the substrate through the finished goods. Fracture Shield must not be left uncovered or exposed. A highly polymer modified mortar (such as: M200, M225, M375, M400) must be used over Fracture Shield meeting ANSI A118.11 or A118.15 for tile or stone installation.

RECOMMENDED SUBSTRATES

Suitable substrates, when properly prepared, include: Fully cured concrete (28 days), cement backer boards (per manufacturers' specifications), properly prepared existing tile and stone using Sienna Gripping Primer, exterior grade plywood (interior areas only), portland cement mortar beds, concrete and masonry.

SURFACE PREPARATION

All surfaces to receive application must be structurally sound, stable, dry, clean and free of all contaminants that would hinder a good bond such as debris, dirt and dust, efflorescence, grease, oils, curing agents, and cleaning solutions. Use a damp sponge to clean and open pores of all surfaces that will receive Fracture Shield. Outdoor locations and any area where moisture will be present should have adequate slope and flashing if applicable to allow for proper drainage. Cracks more than 1/8" (3mm) should be treated as detailed in the Expansion Joints section. Fresh concrete must be cured for a minimum of 28 days prior to Fracture Shield being applied. Existing cementitious substrates can be cleaned by mechanical means such as sanding, scraping or chipping. Smooth surfaces must be roughened to promote proper bond, and all substrate defects should be repaired using Sienna Floor Patch SP820 prior to applying Fracture Shield. For complete surface preparation procedures see the TCNA (Tile Council of North America) Handbook. Use a damp sponge to clean all porous surfaces prior to application. Do not use chemicals or etching agents.

MIXING

Mix thoroughly by hand to incorporate material. Do not add water to Fracture Shield.



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APPLICATION

The recommended tools for applying Fracture Shield are: 3/8" (9.5mm) rough textured roller, 3/16" x 1/4" (5 x 6mm) V-notch trowel, paintbrush, or sprayer that produces between 1,900 to 2,300 psi with a flow rate of 1.0 to 1.5 gpm, and a tip orifice of 0.025 to 0.029 in size. Use a damp sponge to clean all surfaces and all porous surfaces prior to application of the first coat of Fracture Shield.

• **Existing, Non-Structural Cracks:** Cracks up to 1/8" (3mm) must be pretreated prior to the application of Fracture Shield. To Pre-treat these areas, push and apply a liberal amount of Fracture Shield into the crack. Next, apply Fracture Shield along the crack in the width of the diagonal measurement of the tile or stone that will be installed, or a minimum of 8" (20cm) wide, centered over the crack. When using a V-notch trowel, comb at a 45° angle and flatten the material using the flat side of the trowel. If using a roller or brush, apply an even coat with overlapping strokes. Membrane must have a minimum wet thickness of 30 mils per coat.

• **Corners, Coves, Control Joints and Transitions:** Corners, coves, control joints, cracks greater than 1/8" (3mm), and floor-wall transitions must be pre-treated prior to the overall application of Fracture Shield. To pre-treat these areas apply a thick coat approximately 8" (20cm) wide over corners, coves, control joints, cracks greater than 1/8" (3mm), and floor-wall transitions. Embed a minimum 6" (15cm) wide, 4.5oz fiberglass open mesh into the wet membrane and smooth any wrinkles. Immediately apply a second coat over the mesh to create a uniform surface.

• **Expansion Joints:** For expansion joints follow instructions outlined in section EJ 171 of the TCNA (Tile Council of North America) Handbook.

As an Anti-Fracture Membrane - For use as an anti-fracture membrane to isolate shrinkage or non-structural cracks up to 1/8" (3mm), first pre-treat existing cracks as detailed in the above section titled "Existing, Non-Structural Cracks". Use a damp sponge to clean all surfaces and all porous surfaces prior to application of the first coat of Fracture Shield. Once the pre-treatment material has dried (approximately 30 min. - 1 hr.), apply Fracture Shield over the entire working area to an approximate thickness of 30 mils wet. When using a V-notch trowel, comb at a 45° angle and flatten the material with the flat side of the trowel. If using roller or sprayer, apply an even coat with overlapping strokes. Use polymer modified mortars (such as: M200, M225, M375, M400) meeting ANSI A118.11 or A118.15 for tile or stone installation over membrane.

LIMITATIONS

DO NOT apply to surfaces that may go below 40°F (4°C) during the first 72 hours after application. DO NOT apply over wet surfaces or surfaces subject to hydrostatic pressure. DO NOT use as an adhesive. DO NOT use as a wear surface, membrane must be covered with tile or other protective surface DO NOT use to bridge or cover over any existing expansion, control, construction, and cold or saw-cut joints. DO NOT leave membrane to be soiled or punctured during and after application. Membrane should be protected from rain, direct sunlight and inclement weather for 72 hours after application. Cover with felt paper if delays are expected to be longer than 72 hours.

TECHNICAL ASSISTANCE

Technical information is available on our web site at: SienaProducts.com, by calling Omega Products International at: 800.600.6634, or by email at: info@omega-products.com

CLEANING

Cleaning of tools and hands may be accomplished with water before material dries. All spray equipment should be cleaned immediately after use.

TECHNICAL DATA

Pot Life at 70°F (21°C)	Indefinite	
System Crack Resistance Test (ANSI A118.12 Section 5.4)	Passes	
Drying Time Before Floor Covering Installation	1.5 - 2.0 Hours or up to 12 Hours	
Fungus and Micro-Organism Resistance ANSI A118.10 Sect # 4.2	Passes	
Seam Strength width ANSI A118.10 Sect # 4.2	37.4 lbs/2 inch width (16.9kg/5cm)	
Breaking Strength ANSI A118.10 Sect # 4.3	611 psi (42.9kg/cm ²)	
Dimensional Stability ANSI A118.10 Sect # 4.4	-0.1% at 158°F -0.1% at -15°F	
Shear Strength 12-Week dry cure ANSI A118.10 Sect # 5.6	318.1 psi (22.36kg/cm ²)	
Elongation	21 Day dry cure	330%
ASTM D-638 (Internal Lab Results)	7 Day dry cure/ 21 Day wet cure	600%

COVERAGE

1 gallon (3.8L) pails: 75 - 85 sq. ft. (6.9m² - 7.9m²) at 30 mil thickness when wet
3.5 gallon (13.3L) pails: 260 - 300 sq. ft (24.1m² - 27.9m²) at 30 mil thickness when wet
5 gallon (18.9L) pails: 375 - 425 sq. ft. (34.8m² - 39.5m²) at 30 mil thickness when wet

Note: Values listed above are typical results for tests indicated and should not be considered specifications. Actual product performance will depend on job conditions, temperature, humidity and application methods.

SAFETY

Avoid contact with eyes or prolonged contact with skin. Wash thoroughly after handling. In case of eye contact, flush immediately with running water for at least 15 minutes. Consult a physician immediately. Do not take internally. Be sure to provide adequate ventilation in enclosed areas. Use of an approved respirator is recommended.

WARNING

Omega Products International, as a blender of processed material in the State of California, is required by Proposition 65 to warn that one or more of the components contained in this product, could contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. The State of California (Proposition 65) requires this warning in the absence of definitive testing to prove that the defined risks do not exist. We believe this product complies with all other applicable state and federal laws and regulations governing manufacturing, distribution and intended use. User is solely responsible for the legal disposal of this container and its contents.

KEEP OUT OF REACH OF CHILDREN

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