Siena Fracture Shield is a ready to use and fast drying crack isolation membrane. It is manufactured with a mixture of 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. DO NOT use on exterior vertical installations.

**PACKAGING**
1 Gallon (3.8L) pail  
3.5 Gallon (13.3L) pail  
5 Gallon (18.9L) pail

**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 Siena website at SienaProducts.com and click on the “Material Calculator” tab for recommended products, and to calculate the amount of material needed for each project. Always follow all manufacturers’ recommendations and warranty information prior to any tile or stone installation.

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>BENEFITS</th>
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</thead>
<tbody>
<tr>
<td>Crack Isolation</td>
<td>Prevent Shrinkage or Non-structural Cracks up to 1/8”</td>
</tr>
<tr>
<td>Easy to Use</td>
<td>Apply with a Roller, Trowel, Paint Brush or Sprayer</td>
</tr>
<tr>
<td>Fast Drying</td>
<td>Glossy White When Wet and Becomes a Flat White Upon Drying</td>
</tr>
<tr>
<td>Meets ANSI A118.12</td>
<td>Prevents Cracks from Transmitting to Finished Goods</td>
</tr>
</tbody>
</table>

**BASIC USES**
Siena Fracture Shield is used on recommended substrates as a 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 Siena 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 Siena 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.

SEPT 2019
Fracture Shield

Crack Isolation Membrane

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

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 2,500 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 wider 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 of membrane to create a uniform surface.


As a Crack Isolation Membrane - For use as a crack isolation 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 mortar or thin-set mortar (meeting ANSI A118.11) to embed A118.10 Sect # 5.6. Embed a minimum of 15 mils wet. When using a V-notch trowel, comb at a 45° angle and flatten the material using the flat side of the trowel. If using roller or brush, apply an even coat with overlapping strokes. Use polymer modified mortar or thin-set mortar (meeting ANSI A118.11) to embed A118.10 Sect # 5.6. Embed a minimum of 15 mils wet.

Limitations
DO NOT apply to surfaces that may go below 40°F (4°C) during or 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: 951.737.7447, 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.

Disclaimer
Omega Products International [Manufacturer] MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE PRODUCT SOLD HEREFOR. The recommendations, suggestions, statements and technical data are based on the best knowledge available to Manufacturer and are given for informational purposes ONLY and without any responsibility for their use. It is expressly understood and accepted, as a condition of the use of this product, that the buyer's sole and exclusive remedy for any claimed defective product against Manufacturer shall be the replacement of products actually proven to be defective. Handling and use of the products are beyond the control of Manufacturer; therefore, no warranty is made, expressed or implied, as to the results obtained from the use of the product or against any claims for infringement of patents resulting from use of the product. Under no circumstance shall Manufacturer be liable for incidental or consequential damages arising out of the use or the improper application of the product. Before applying the product, the user shall determine the suitability of the product for his or her use, assuming all risks and liability whatsoever in connection therewith. This writing constitutes a complete and exclusive statement of the understanding between Manufacturer and Buyer.

Technical Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pot Life at 70°F (21°C)</td>
<td>Indefinite</td>
</tr>
<tr>
<td>System Crack Strength Test (ANSI A118.12 Section 5.4)</td>
<td>Passes</td>
</tr>
<tr>
<td>Drying Time Before Floor Covering Installation</td>
<td>1.5 - 2.0 Hours or up to 12 Hours</td>
</tr>
<tr>
<td>Fungus and Micro-Organism Resistance ANSI A118.10 Sect # 4.2</td>
<td>Passes</td>
</tr>
<tr>
<td>Seam Strength width ANSI A118.10 Sect # 4.2</td>
<td>37.4 lbs/2 inch width (16.9kg/5cm)</td>
</tr>
<tr>
<td>Breaking Strength ANSI A118.10 Sect # 4.3</td>
<td>611 psi (42.9kg/cm²)</td>
</tr>
<tr>
<td>Dimensional Stability ANSI A118.10 Sect # 4.4</td>
<td>-0.1% at 158°F</td>
</tr>
<tr>
<td>12-Week dry cure ANSI A118.10 Sect # 5.6</td>
<td>318.1 psi (22.36kg/cm²)</td>
</tr>
<tr>
<td>Elongation 21 Day dry cure</td>
<td>330%</td>
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<tr>
<td>7 Day dry cure/ 600%</td>
<td></td>
</tr>
<tr>
<td>ASTM D-638 (Internal Lab Results)</td>
<td>21 Day wet cure</td>
</tr>
</tbody>
</table>

Coverage
100 sq.ft. (9.2 m²) per gal. at 15 mil wet thickness
50 sq.ft. (4.6 m²) per gal. at 30 mil wet thickness
25 sq.ft. (2.3 m²) per gal., two coats at 30 mil wet thickness each, meets ANSI A118.12.

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 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

Pot Life 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.

Manufacturer shall be the replacement of products actually proven to be defective. Handling and use of the products are beyond the control of Manufacturer; therefore, no warranty is made, expressed or implied, as to the results obtained from the use of the product or against any claims for infringement of patents resulting from use of the product. Under no circumstance shall Manufacturer be liable for incidental or consequential damages arising out of the use or the improper application of the product. Before applying the product, the user shall determine the suitability of the product for his or her use, assuming all risks and liability whatsoever in connection therewith. This writing constitutes a complete and exclusive statement of the understanding between Manufacturer and Buyer.