



Dragon Skin

TILE & STONE INSTALLATION PRODUCTS

DESCRIPTION

Sienna Dragon Skin is a premium, ready to use waterproofing and anti-fracture membrane, manufactured with a mixture of latex polymers and other proprietary additives to produce a high quality elastomeric barrier. Dragon Skin is easily applied using a trowel, a roller, paint brush or a sprayer. Dragon Skin is a light purple color when wet, and changes to a dark purple color to indicate when it is dry. Dragon Skin bonds to most surfaces, dries quickly and is ready to flood test in as little as 24 hours. Dragon Skin exceeds the requirements for ANSI A118.10 for waterproofing membranes and ANSI A118.12 for anti-fracture. It can be used in residential, commercial, interior and exterior tile and stone installations. IAPMO has listed Sienna Dragon Skin for use as a shower pan liner (IAPMO R&T, File # 6892).

BASIC USES

Dragon Skin is used on recommended substrates as a barrier to water migration for load bearing thin set tile and stone installation, and as an anti-fracture membrane used to prevent shrinkage or non-structural cracks up to 1/8" transmitting from the substrate through to the finished goods. Use polymer modified mortars meeting ANSI A118.4 or A118.11 for tile or stone installation over membrane.

STORAGE

1. Store containers unopened in a cool, dry location.
2. Store at a temperature between 40°F (4°C) and 90°F (32°C).
3. Store out of direct sunlight.
4. Protect containers from weather and other damage.
5. Keep from freezing

RECOMMENDED SUBSTRATES

Suitable substrates, when properly prepared, include: Fully cured concrete (28+ days), cement backer units (per manufacturers' specifications), properly prepared existing tile, exterior grade plywood (interior areas for anti-fracture only), fully cured portland cement mortar beds (28+ days), concrete & brick masonry, gypsum board (only interior walls), and exterior decks with proper drainage.

SURFACE PREPARATION

All surfaces to receive application must be structurally sound, stable, dry, clean and free of contaminants that would diminish a good bond such as debris, dirt and dust, efflorescence, grease, oils, curing agents, and cleaning solutions that would hinder a proper bond. Outdoor locations and any area where moisture will be present should have adequate slope to allow for proper drainage. Cracks more than 1/8" (3 mm) should be treated as detailed in the Control Joints section. Texture fresh concrete to a fine broom finish and cure for a minimum of 28 days. 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 prior to membrane application. For complete surface preparation procedures see the TCNA (Tile Council of North America) Handbook. Slightly moisten all porous surfaces prior to application of the first coat of Dragon Skin.

MIXING

Mix thoroughly by hand or use a mixer of less than 300 rpm to avoid too much entrapped air. Do not add any water to Sienna Dragon Skin.

APPLICATION

General Installation

The recommended tools for applying Dragon Skin are: 3/16" x 1/4" (5 x 6 mm) V-notch trowel, 3/8" (9.5 mm) rough textured roller, paintbrush, or a 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. Slightly moisten all porous surfaces prior to application of the first coat of Dragon Skin.

- **Existing, Non-Structural Cracks:** Cracks up to 1/8" (3 mm) must be pretreated prior to the application of Dragon Skin. To Pre-treat these areas, push and apply a liberal amount of Dragon Skin into the crack. Next, apply Dragon skin along the crack in the width of the diagonal measurement of the tile or stone that will be installed, or a minimum of 8" (20 cm) 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" (3 mm), and floor-wall transitions within in area to be waterproofed must be pre-treated prior to the overall application of Dragon Skin. To pre-treat these areas apply a thick coat approximately 8" (20 cm) wide over corners, coves, control joints, cracks greater than 1/8" (3 mm), and floor-wall transitions. Embed a minimum 6" (15 cm) wide, 4.5oz fiberglass mesh into the wet membrane and smooth any wrinkles. Immediately apply a second coat over the mesh to create a uniform, void-free surface.
- **Drains:** Drains must have a locking (bolt-down) collar and be clean of oils, dirt and any material that would hinder a proper bond. Apply a thick coat of Dragon Skin around and over the flange and surrounding area, a minimum of 8" (20 cm). Embed minimum 6" (15 cm) wide, 4.5oz fiberglass mesh into the wet membrane and smooth any wrinkles. Take care not to block the weep or drainage holes. Immediately apply a second coat over the mesh to create a uniform, void-free surface. When the membrane is dry, install the upper flange by evenly tightening it to create a watertight seal. Using silicone caulking, seal the circumference where the membrane and upper flange meet. A toilet flange can be handled in a similar manner.
- **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". Slightly moisten all porous surfaces prior to application of the first coat of Dragon Skin. Once the pre-treatment material has dried to a dark purple (approximately 1.5 to 2 hours), apply Dragon Skin 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 meeting ANSI A118.4 or A118.11 for tile or stone installation over membrane.

As a Waterproof Membrane

Follow the pre-treating instructions for cracks, coves, corners, expansion joints, and drains sections above. Slightly moisten all porous surfaces prior to application of the first coat of Dragon Skin. Apply the first coat of Dragon Skin over the area to be waterproofed. 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. After the first coat has dried to a dark purple color (approximately 1.5 to 2 hours), apply a second coat at a right angles to the first. Inspect the film and add material to fill in any holes or voids to create a continuous film. Periodically check membrane thickness with a wet film gauge. Each coat should have a minimum wet thickness of 30 mils and a combined two coat wet thickness of a minimum 60 mils. Total wet thickness should not exceed 125 mils thick. Use polymer modified mortars meeting ANSI A118.4 or A118.11 for tile or stone installation over membrane.

Interior Change of Plane Commercial Waterproofing Applications

Contact Technical support before starting any commercial installation for review and recommendations.

DRYING

Dry the freshly applied material for at least 2 hours. Dragon Skin will turn to a dark purple color when dry. Siena Dragon Skin can be tested for leaks 24 hours after application. Drying time may vary due to surface and area conditions, ambient temperatures and humidity.

COVERAGE

As a crack isolation membrane at 30 mil wet thickness:
50 sq.ft. (4.6 m²) per gallon

As a waterproof membrane at a total 60 mil wet thickness:
25 sq. ft. (2.3 m²) per gallon

MATERIAL CALCULATOR

Visit the Siena web site at www.SienaProducts.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.

PACKAGING

1 gallon (3.8 L) pails
3.5 gallon (3.2 L) pails
5 gallon (18.9 L) pails

TECHNICAL DATA

Bucket Life @ 73° F (23°C)	Indefinite
Drying Time	2 hours

ANSI A118.10 Results:

Fungus and Micro-Organism Resistance	Passes
Seam Strength	37.4 lbs / 2 inch width (16.96 kg/ 5cm)
Breaking Strength	611 psi (43.0 kg/cm ²)
Dimensional Stability	-0.1% @ 158°F and -0.1% @ -15°F
Waterproofness	Passes
Shear Strength 12-Week dry cure	318.1 psi (22.4 kg/cm ²)
Shear Strength 100 Day water immersion	326.5 psi (23.0 kg/cm ²)

IAPMO/Uniform Plumbing Code 4244:

Hydrostatic Pressure/Alkali-Resistance	Passes
Waterproofness	Passes
Elongation ASTM D-638 21 Day dry cure	235 %
VOC Content	6 g/L

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 over 12 lbs.
DO NOT use as an adhesive.
DO NOT use as a wear surface, membrane must be covered with tile or other protective finished surface material.
DO NOT use to bridge or cover any existing expansion joints, control joints, construction, cold or saw-cut joints.
DO NOT leave membrane unprotected 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 or other protection if delays are expected to be longer than 72 hours.

CLEANING

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

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, Inc., 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/or its contents.

KEEP OUT OF REACH OF CHILDREN

DISCLAIMER

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CLAIMS

Any Claimant shall notify Manufacturer immediately in writing of any alleged defect in the material. Claimant will provide Manufacturer with a reasonable and exclusive opportunity to investigate and test for the alleged defect. For any claim that is not valid Claimant agrees to pay Omega's reasonable charges, including travel and labor associated with investigation of such claim.

TECHNICAL ASSISTANCE

Technical assistance and information is available by calling Omega Products International, Inc. at (800) 600-6634 or FAX (951) 520-2594 or by e-mail at "info@omega-products.com".

WARRANTY

The following is made in lieu of all expressed and implied rights, warranties and conditions, statutory or otherwise. The Manufacturer's only obligation shall be to replace such quantity of products proven to be defective within one year following the date of manufacture, provided that the alleged defective product is returned prepaid to the Manufacturer's plant and is accompanied with proof of purchase and batch number.

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