

SlopeShield® Plus Self-Adhered

a highly vapor permeable roofing underlayment Air Barrier (AB) material for use on steep slope roofs: Roll Size: 59" Product No.: 29309000/Roll Size: 29.5" Product No.: 41303400

SlopeFlashing

Product No.: 41308000

Product Description

SlopeShield Plus Self-Adhered roofing underlayment protects the roofing assembly by allowing vapor to pass through (breathable) but not air or liquid—mitigating costly moisture damage and saving energy for the life of the building.

BASIC USE

SlopeShield Plus Self-Adhered is installed on steep slope roofs of 2:12, (9.46 degrees), or greater pitch. Alternative uses include: low slope roofs below 2:12 (9.46 degrees) and mass timber moisture protection. See corresponding data sheets.

MATERIALS

SlopeShield Plus Self-Adhered consists of a spun-bond polyester fabric with proprietary coatings on the top and underside utilizing. The top coating is slip resistant and UV-stable. The underside is a fully self-adhered adhesive protected by a siliconized release film, which is removed during installation.

BENEFITS

SlopeShield Plus Self-Adhered is installed as a roofing underlayment, designed to promote long term drying of the roofing assembly through vapor diffusion as an alternate to vapor barrier products that eliminate diffusive drying. It protects the roofing assembly by allowing vapor to pass through (breathable) but not air or liquid water.

Superior roof envelope protection – high drying capacity (30 perms) allows building materials to dry out, reducing the risk of damage from moisture infiltration, mold, mildew and rot.

Top surface is slip resistant, UV stable, and resistant to punctures, tears, and foot traffic.

Airtight barrier – stops air infiltration as per the ASTM E2178 air permeance material test.

High Temp Resistance – specially formulated to withstand temperatures up to 250°F (121°C).

Consistent millage thickness – a factory-made rolled good ensures consistent properties and performance.

Fully tested roofing system – Flashing accessories that limit the need for untested outside components. All accessories are fully compatible with VaproShield wall membranes.

Fully bonds without primer – No primers are used or required for product installation.

BENEFITS Con't

Simple installation – requires only basic tools; no specialized mobilizations or protection gear are required.

Apply to clean and dry-to-the-touch "as new" substrates, no additional preparation is required.

Spans substrate joint gaps up to ½" (12.7 mm), eliminates need for tapes and fillers.

Phase construction ready, installs in below freezing temperatures, sustains up to 180 days of UV and climate exposure prior to roof system installation. Best practice always recommends coverage as soon as possible.

Emits zero VOCs ensuring crew safety and a healthy building.

Compatible Substrates

- Gypsum/Fiber Roof Sheathing Boards
 - Rigid Insulation
 - Concrete
 - Plywood
 - Mass Timber
 - Pre-painted Steel
 - Galvanized Metal
 - Aluminum (Painted/Mill Finish)
- *For OSB and OSB factory-coated products contact VaproShield Technical.

Roof Materials

- Metal Roofing
- Cedar Shingles/Shakes with VaproMat™
- Slate and Tile
- Metal - Class A roof assembly with 1/4" thermal board
- Tile - Class A no thermal board

Contact VaproShield Technical if you have any additional substrate or roofing system questions.

Applications:

- Compact roof decks with rigid insulation
- Steel decks
- Plywood and wood decks

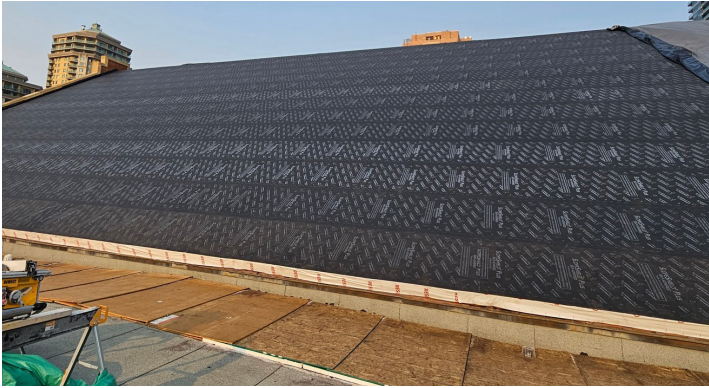
Technical Data & Environmental

Tested to industry standards for vapor permeable roofing underlayment air barrier materials.

STEEP SLOPE PRODUCT DATA SHEET

SlopeShield Plus Self-Adhered - Full Width Roll Part No.: 29309000 / SlopeShield Plus Self-Adhered - Half Width Roll Part No.: 41303400

Complete Roof and Wall System



Standing Seam Metal Roof

Optional use of VaproShim SA Self-Adhered under metal roof clips creates increased airflow under metal panels.



Cedar Shingles/Shakes

With VaproMat™ Drainage Matrix



Slate Roof

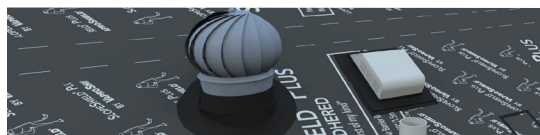


High End Residential

FLASHING OPTIONS

Self-adhered air barrier flashing shall be SlopeFlashing™ for eaves, hips, ridges, and valleys.

Flashing Membrane		
Product	Part No.	Roll Sizes
SlopeFlashing		Roll Size: 19 2/3" x 102' (500mm x 31m), 167 S/F (15.5 S/M)



Penetration Sealants		
Product		
	VaproLiqui-Flash™ (20 oz.)	VaproBond™ (20 oz.)
Part No.	38609801	60309800
Application Temperature	35°F to 110°F (1.7°C to 43°C)	20°F to 120°F (-6.7°C to 49°C)

Reference individual data sheets for comprehensive information.

BUILDING ENVELOPE SYSTEM

WrapShield SA Self Adhered or RevealShield SA Self Adhered for open joint cladding. View corresponding Product Data Sheets for in-depth information.



WRAPSHIELD SA®
SELF-ADHERED
WRB/Air Barrier
Part No. 24109090



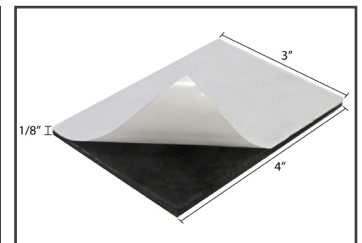
REVEALSHIELD SA®
SELF-ADHERED
WRB/Air Barrier
Part No. 13309090

VAPROMAT™



Hydrophobic filter fabric with polypropylene drainage matrix, available in two depths: 3mm, 7mm. View corresponding VaproMat Product Data Sheet for in-depth information.

VAPROSHIM SA™ SELF-ADHERED



Simple, cost effective neoprene accessory, creates a rain screen drainage plane and air/water tight seal for fastener penetrations, available in 1/8" x 3" x 4" (3 x 76 x 102mm).

STEEP SLOPE PRODUCT DATA SHEET

SlopeShield Plus Self-Adhered - Full Width Roll Part No.: 29309000 / SlopeShield Plus Self-Adhered - Half Width Roll Part No.: 41303400

PHYSICAL PROPERTIES	
PROPERTY	RESULT
Color	Black with White Lettering (TOP)
Thickness	0.02 in (0.51 mm) (20 mil)
Membrane Weight	447 g/m ² (1.46 oz/ft ²)
59" Roll Weight (with release film)	50.6 lbs (23.0 kg) (1.56 oz/ft ²)
29" Roll Weight (with release film)	25 lbs (11kg) (1.56 oz/ft ²)
Roll Dimensions	59" x 102' (1.5 m x 31.1 m) 29.5" x 102' (749mm x 31.1m)
Roll Coverage	59" 500 ft ² (46.6 m ²) gross 29.5" 275 ft ² (23.3m ²) gross
Primer	No Primer Required
VOCs	None
Exposure Before Permanent Roofing Materials	180 days (6 months)
Minimum Application Temperature	20°F (-6°C)
Service Temperature	minus 40°F (-40°C) - 250°F (121°C)
High Temp Resistance	250°F (121°C)
Warranty	20 year material warranty

Installation

STORAGE AND HANDLING

Store materials on end in original packaging at temperatures between 40°F and 120°F (4.4°C and 48.9°C). Protect materials from direct sunlight and inclement weather until ready for use.

SAFETY

Persons who access any roofs, involved with roof construction, repair or maintenance shall use appropriate personal protective equipment including, but not limited to, hard hats, eye protection, and leather gloves and must be trained on safe practices relevant to their work.

Where the use of ladders, scaffolds, platforms, or temporary floors are utilized, safety lines and safety harnesses shall be used. Please access the OSHA Web site at www.osha.gov, contact your local OSHA office, or visit the local federal bookstore to obtain the most current information on OSHA 29 CFR 1926.

CAUTION: Release liners are slippery. To prevent injury, liner should be removed from under foot as soon as membrane is installed and disposed of properly.

PREPARATION

All surfaces must be dry, sound, clean, "as new" condition, and free of oil, grease, dirt, excess mortar or other contaminants detrimental to the adhesion of the roofing underlayment and flashings. Fill voids and gaps in substrate greater than ½" (12.7 mm) in width to provide an even surface.

BEST PRACTICE INSTALLATION

Install SlopeShield Plus Self-Adhered roofing underlayment and related accessories according to manufacturer's separate written installation instructions. All overlaps must be a minimum of 3" (8 cm) on horizontal seams. Shingled laps are required.

On low slope roofs, below 2:12 (9.46 degrees), VaproShield requires all seams be covered with VaproShield's black, UV stable VaproTape™. VaproTape must be installed in a dry environment to protect against ponding water conditions that may occur in low or no-slope conditions. VaproTape must be rolled with a weighted roller to ensure proper adhesion.

For all slope conditions, when SlopeShield Plus SA is installed in a vertical fashion—same direction as the slope—VaproTape is required on the vertical seams.

For steep slope applications, 2:12 and greater pitch, SlopeShield Plus SA may be installed in a shingle fashion, perpendicular to the roof slope, without VaproTape. Visit www.VaproShield.com for complete installation instructions and details.

LIMITATIONS

SlopeShield Plus Self-Adhered should be covered within 180 (6 months) of installation with permanent roofing material.

SlopeShield Plus Self-Adhered Roofing Underlayment Sheet may be utilized as temporary water hold out based upon proper installation. Cover membrane as soon as practical with maximum exposure of 180 days (6 months).

Minimum recommended application temperature of 20°F (- 6.0°C) and rising.

If desired adhesion is not attained between membranes due to site conditions, VaproShield recommends applying a bead of VaproBond as an additional solution to pressure rolling.

Availability

VaproShield products are available throughout North America, Central and South America, and New Zealand.

Warranty

A 20-year material warranty is available.




STEEP SLOPE PRODUCT DATA SHEET

SlopeShield Plus Self-Adhered - Full Width Roll Part No.: 29309000 / SlopeShield Plus Self-Adhered - Half Width Roll Part No.: 41303400

TESTING DATA		
PROPERTY	STANDARD	RESULT
Strength		
Dry Breaking Force (Grab method) Percent Elongation	ASTM D5034 Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)	MD – 31% XMD – 40%
Dry Breaking Force (Grab method) MD ≥40 XMD ≥35	ASTM D5034 Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)	MD – 23.6 N/mm (135 lbf/in.) XMD – 19.8 N/mm (113 lbf/in.)
Tensile Strength	ASTM D2523 Standard Practice for Testing Load-Strain Properties of Roofing Membranes	MD – 2.8 N/mm (16 lbf/in) XMD – 1.4 N/mm (8 lbf/in)
Percent Elongation	ASTM D2523 Standard Practice for Testing Load-Strain Properties of Roofing Membranes	MD – 36 % XMD – 40 %
Puncture Resistance	ASTM E154 Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover	Puncture Strength 636 N (143 lbf) Peak Deflection 43.4 mm (1.71 in)
Tear Resistance (Tongue Tear)	ASTM D5601 Standard Test Method for Tearing Resistance of Roofing and Waterproofing Materials and Membranes	MD – 70.3 N (15.8 lbf) XMD – 64.5 N (14.5 lbf)
Tear Resistance (Tongue Tear)	ASTM D4073 Standard Test Method for Tensile-Tear Strength of Bituminous Roofing Membranes	MD – 427 N (96.1 lbf) XMD – 273 N (61.3 lbf)
Low Temperature Flexibility @ -45.6°C (-50°F)	ASTM D5147 Standard Test Methods for Sampling and Testing Modified Bituminous Sheet Material	MD – PASS XMD – PASS
Static Puncture Resistance	ASTM D5602 Standard Test Method for Static Puncture Resistance of Roofing Membrane Specimens	PASS Concrete 445 N (100 lbf) PASS Insulfoam IX 222 N (50 lbf)
Water Vapor Transmittance		
Water Ponding Test AC 48 Acceptance Criteria for Self-Adhered Roof Underlayments for use as Ice Barriers. Section 4.4 Water-Ponding Test	Three control specimens and three aged specimens are prepared. A 2-inch-diameter (51 mm) cylindrical tube with a 24-inch (610 mm) height of distilled water is sealed onto the specimen surface for a period of 48 hours. The drop in the water column from the original 24-inch (610 mm) height is to be reported in hundredths of an inch. The presence of any moisture on specimens shall be reported.	PASS
Water Vapor Transmission Water Method 22.8°C (73°F) 50%RH	ASTM E96 Standard Test Methods for Water Vapor Transmission of Materials	30 Perm (grain/h•ft²•inchHg) 1716 ng/Pa•s•m²
Water Vapor Transmission Dynamic Relative Humidity Measurement 23°C (73.4°F) 50%RH	ASTM E398 Standard Test Method for Water Vapor Transmission Rate of Sheet Materials Using Dynamic Relative Humidity Measurement	30 Perm (grain/h•ft²•inchHg) 1716 ng/Pa•s•m²
Adhesion Testing		
Lap Adhesion	ASTM D1876 Standard Test Method for Peel Resistance of Adhesives (T-Peel Test)	437 N/m (2.5 pli)
Delamination (Tear-drop)	FM 4470, C.2 Single-Ply, Polymer-Modified Bitumen Sheet, Built-Up Roof (BUR) and Liquid Applied Roof Assemblies for use in Class 1 and Noncombustible Roof Deck Construction Appendix H Test Procedure for Small Scale QC and Physical Properties of Roof System Assemblies	Concrete - 24 N (5.4 lbf) Plywood - 28 N (6.4 lbf) Galvanized Steel - 59 N (13.2 lbf) ACFoam II - 24 N (5.3 lbf) ACFoam III - 32 N (7.3 lbf) Insulfoam IX - 23 N (5.1 lbf) Styrofoam™ High Load 60 - 41 N (9.3 lbf) Dens Deck Prime Roof board - 24 N (5.5 lbf) Securock® Gypsum-FiberRoof Board - 35 N (7.8 lbf)
Tensile Adhesion	Testing Application Standard (TAS) No. 114-95, Test Procedures for Roof System Assemblies, in the High Velocity Hurricane Zone Jurisdiction	INSTA STICK™ - 2848 N (640.3 lbf) OlyBond500™ - 2580 N (580 lbf) Millennium One Step™ - 3821 N (858.9 lbf) Millennium PG-1 Pump Grade - 4355 N (979 lbf) CR-20 - 3354 N (754 lbf)
Peel Adhesion	ASTM D903 Standard Test Method for Peel or Stripping Strength of Adhesive Bonds	Concrete 438 N/m (2.5 pli) Plywood 876 N/m (5.0 pli) Galvanized steel 946 N/m (5.4 pli)
Air Resistance Testing		
Air Permeance	ASTM E2178 @75 Pa Standard Test Method for Air Permeance of Building Materials	0.00437 L/(s x m²) @ 75 Pa (0.00086 cfm/ft² @ 1.57 psf)

STEEP SLOPE PRODUCT DATA SHEET

SlopeShield Plus Self-Adhered - Full Width Roll Part No.: 29309000 / SlopeShield Plus Self-Adhered - Half Width Roll Part No.: 41303400

TESTING DATA		
PROPERTY	STANDARD	RESULT
Water Resistance Testing		
Nail Sealability	ASTM D1970/ section 7.9 Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection ASTM D7349 Standard Test Method for Determining the Capability of Roofing and Waterproofing Materials to Seal around Fasteners	PASS
Fire Testing		
Flame Spread Smoke Developed	ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials	Flame Spread 5 Smoke Developed 45
UL	UL790 Test Method of Fire Tests for Roof Coverings, CAN/ULC-S107	PASS
Approvals		
<div>   <p>BASE/PLY SHEET FOR ROOFING SYSTEMS AS TO AN EXTERNAL FIRE EXPOSURE SEE UL DIRECTORY OF PRODUCTS CERTIFIED FOR CANADA AND UL ROOFING MATERIALS AND SYSTEMS DIRECTORY (R40823)</p> </div> <div> <p>Florida Product Approval #FL41811</p>  <p>NEMO etc. Nemo Evaluation Report FBC FL41811</p> </div>		