

RevealShield SA® Self-Adhered

a highly vapor permeable Water Resistive Barrier (WRB) and Air Barrier (AB) sheet membrane

Product Description

RevealShield SA Self-Adhered WRB/Air Barrier membrane protects the building envelope by allowing vapor pass through (breathable) but not air or liquid water mitigating costly moisture damage and saving energy for the life of the building.

BASIC USE

RevealShield SA Self-Adhered is installed above grade behind open joint rainscreen wall cladding assemblies where permanent UV exposure is inherent.

CLADDING OPEN JOINTS

Cladding open joints can be up to 2" (5.1 cm) or up to 40% of the total elevation area.

MATERIALS

RevealShield SA Self-Adhered consists of multiple layers of spun-bond polyester fabric with a proprietary coating and a fully self-adhered pressure sensitive adhesive that allows for initial re-positioning prior to rolling.

BENEFITS

Uniquely suited for open joint cladding requiring advanced UV protection such as perforated panels, reclaimed wood and special facades.

Superior building envelope protection – high drying capacity (63 perms) allows building materials to dry out, reducing the risk of damage from moisture infiltration, mold, mildew and rot — for the life of the building.

Airtight barrier – stops air infiltration as per the ASTM 2357 Air Barrier assembly test, ABAA approved.

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

Fully tested building envelope system – rough opening flashing accessories eliminate the need for untested outside components.

Fully bonds without primer to most substrates (excluding OSB). No primers are used or required for product installation.

Compatible Substrates

- Exterior Gypsum Sheathing
- Rigid Insulation
- Precast Concrete
- Concrete Block
- Cast-in-place Concrete
- Plywood
- Pre-painted Steel
- Galvanized Metal
- Aluminum (Painted/Mill Finish)
- Anodized Aluminum
- Vinyl Window and Door Frames
- Fiberglass Window and Door Frames

Contact VaproShield Technical – if you have additional substrate questions

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 7/8" (22.2 mm), eliminates need for tapes and fillers.

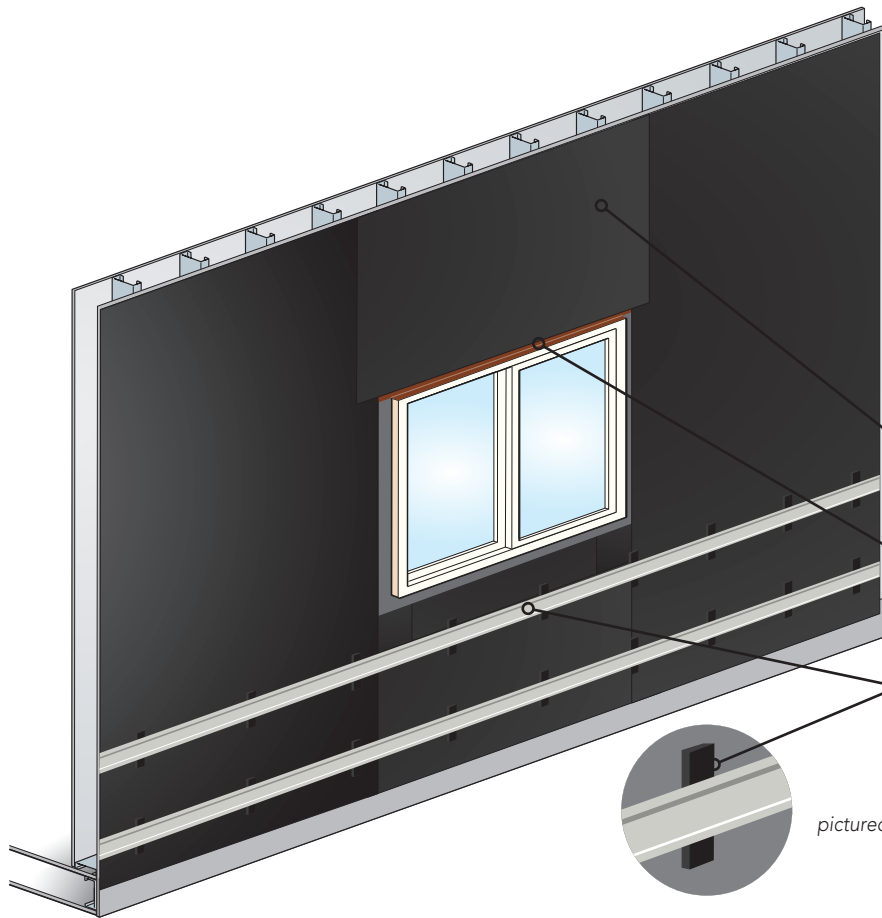
Phase construction ready, installs in below-freezing temperatures, non-directional installation, sustains up to 12 months UV and climate exposure prior to open joint cladding installation.

Emits zero VOCs ensuring crew safety and a healthy building.

Technical Data & Environmental

Tested to industry standards for Weather Resistive Barriers and approved by ABAA to meet requirements for Air Barriers.

PHYSICAL PROPERTIES	
PROPERTY	RESULT
Color	Black (top), Black (back)
Thickness	0.4798 mm (18.889 mil)
Membrane Weight	364.66 g/m ² (1.20 oz/ft ²)
Roll Weight	55 lbs (25 kg)
Roll Dimensions	59" x 102' (1.5m x 31.1 m)
Roll Coverage	500 sq. ft. (46.6 sq. m.) gross
Skid	1 Roll
Primer	No Primer Required
VOCs	None
Exposure Before Permanent Cladding	12 months
Minimum Application Temp	20°F (-6°C)
Service Temperature	minus 40°F (-40°C) - 225°F (107°C)
Warranty	20 year material warranty



Complete Building Envelope System

WRB/AIR BARRIER
RevealShield SA Self-Adhered

A ROUGH OPENING
FLASHING OPTIONS

B RAINSCREEN COMPONENTS




pictured: VaproShims SA Self-Adhered

A ROUGH OPENING FLASHING OPTIONS

Self-adhered air barrier transition and flashing shall be: VaproFlashing SA™ Self-Adhered in conjunction with: VaproLiqui-Flash™, Vapro-SS Flashing™ and/or VaproBond™ for rough opening and penetration flashings. Reference individual data sheets for comprehensive information.

A RAINSCREEN COMPONENTS

RevealShield SA Self-Adhered membrane requires a ventilated and unimpeded vertical drainage cavity or rainscreen system to be incorporated into all WRB/AB installations. VaproShim SA™ Self-Adhered accomplishes this, and are available as a corresponding accessory. View corresponding Product Data Sheet for in-depth information.

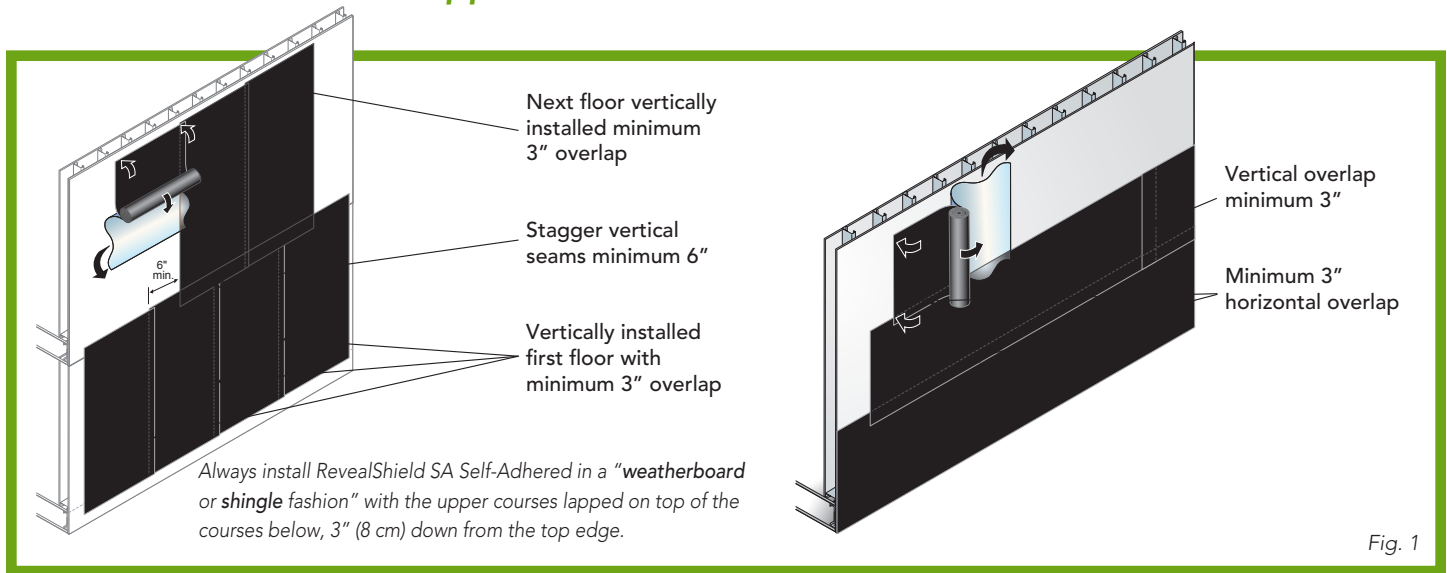
Window and Rough Opening Flashing	  		
	VaproLiqui-Flash	Vapro-SS Flashing	VaproBond
Rough Opening Flashing Membrane	RevealShield SA Self-Adhered (black) In conjunction with one of the following:		
Application Temperature	35°F to 100°F (2°C to 38°C)	20°F to 170°F (-6°C to 77°C)	-50°F to 300°F (-45°C to 149 °C)
Substrates	All	All, except wood	All, except wood
Drying Capacity Breathable	High	None	Low
Application Method	Sausage Gun / Putty Knife or Brush	Utility Knife /J-Roller	Sausage Gun / Putty Knife
VOC's /Red List Chemicals	None	Some	Some
Material Type	STPE Formulation	Stainless Steel /Butyl Adhesive	Modified Silicone



VaproShim SA™ Self-Adhered

Simple, cost effective neoprene/EPDM accessory, creates a rain screen drainage plane and air/water tight seal for fastener penetrations, available in two thicknesses: 1/8" (3mm), 1/4" (6mm).

Vertical and Horizontal Application



RELATED LEED CREDITS

RevealShield SA Self-Adhered membrane contributes to Environmental Quality ("EQ") credit 4.1: Low Emitting Materials: Adhesives & Sealants, under United States Green Building Council's Rating System for New Construction and Major Renovations (LEED-NC), version 2.2, core and shell (LEED-CS), version 2.0.

Installation

STORAGE AND HANDLING

Store material rolls on end in original packaging. Protect rolls from direct sunlight and inclement weather until ready for use.

SAFETY

Work crews are safe around VaproShield membranes. RevealShield SA Self-Adhered contains zero VOCs or toxins.

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 water resistive air barrier membrane and flashings. Fill voids and gaps in substrate greater than 7/8 inch (22.2 mm) in width to provide an even surface. Strike masonry joints full-flush.

BEST PRACTICE INSTALLATION

All overlaps must be a minimum of 3" (8 cm) on vertical and horizontal seams. Inside and outside vertical corner overlaps should be a minimum 6" (15 cm) in both directions, staggered

a minimum of 24" (61 cm), and should not occur directly above or below windows or doors. See Fig. 1.

Visit www.VaproShield.com for complete installation instructions and instructional videos.

LIMITATIONS

RevealShield SA Self-Adhered should be covered within 12 months of installation with permanent cladding material.

Open joint spacing should not exceed 2" (5.1 cm) with maximum open area not to exceed 40% of total elevation area of open joint cladding.

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

RevealShield SA Self-Adhered membrane should not be subjected to asphaltic materials, chemicals, surfactants, or cleaning compounds that could affect the water resistance of the membrane surface; if exposed, replace effected membrane.

Availability

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

Warranty

A 20-year material warranty is available.

TESTING DATA		
PROPERTY	STANDARD	RESULT
Strength		
Dry Tensile Strength ≥ 20 lbf/in	ASTM D828 Standard Test Method for Tensile Properties of Paper and Paperboard Using Constant-Rate-of-Elongation Apparatus	6.6 N/mm (37.3 lbf)
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 – 529 N (119 lbf) XMD – 427 N (96 lbf)
Cold Mandrel Bend Test	AC38 Section 3.3.4	Warp (Machine) Direction - No cracking Filling (Cross) Direction - No cracking
Weathering Tests	AC38 Section 4.1.2 UV Exposure AC38 Section 4.1.3 Accelerated Aging	UV - No visual change UV & Accelerated - visibly lighter, no visible deterioration
Water Vapor Transmittance		
Water Vapor Transmission Desiccant Method	ASTM E96 A 24.4°C (76.0°F) 50%RH Standard Test Methods for Water Vapor Transmission of Materials (dry method)	28.058 Perm (grain/h•ft ² •inchHg) 160 g/24 hr•m ²
Water Vapor Transmission/ Permeance	ASTM E96 B 24.4°C (76.0°F) 50%RH Standard Test Methods for Water Vapor Transmission of Materials (wet method)	63.481 Perm (grain/h•ft ² •inchHg) 362 g/ 24 hr•m ²
Water Vapor Transmission Rate/ Permeance	ASTM E398 (23°C 50%RH) Standard Test Method for Water Vapor Transmission Rate of Sheet Materials Using Dynamic Relative Humidity Measurement	65.52 Perm (grain/h•ft ² •inchHg) 453.45 g/ 24 hr•m ²
Adhesion Testing		
Adhesion to backing	ASTM D3330 method B	PASS
Peel Adhesion 90° Peel Adhesion, 24 hours	AAMA 711 Section 5.3	PASS
Accelerated Aging and UV Exposure 90° Peel Adhesion, 24 hours	AAMA 711 Section 5.4	PASS
Elevated Temperature 122° F (50 °C) for 7 days) 90° Peel Adhesion, 24 hours	AAMA 711 Section 5.5	PASS
Thermal Cycling 90° Peel Adhesion, 24 hours	AAMA 711 Section 5.6	PASS
Resistance to Peeling from Itself 90° Peel Adhesion 24 hours	AAMA 711 Section 5.9 & Annex 2	DensGlas Gold: No peeling, buckling or ripping Plywood: No peeling, buckling or ripping Concrete: No peeling, buckling or ripping CMU: No peeling, buckling or ripping
Air Resistance Testing		
Air Permeance	ASTM E2178 @75 Pa Standard Test Method for Air Permeance of Building Materials	0.0001 L/s•m ² @ 75 Pa (0.0000 cfm/ft ² @ 1.57 psf)
Air Barrier	ASTM E2357 Standard Test Method for Determining Air Leakage of Air Barrier Assemblies	<0.01 L/s•m ² @ 75 Pa (<0.002 cfm/ft ² @ 1.57 psf)
Air Barrier	ASTM E283 Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen	<0.01 L/s•m ² @ 75 Pa (<0.01 cfm/ft ² @ 1.57 psf)
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	Pass - Review Fastener Penetrations Technical Bulletin at VaproShield.com
Water Resistance (Boat Test)	ASTM D779 Standard Test Method for Water Resistance of Paper, Paperboard, and Other Sheet Materials by the Dry Indicator Method (Withdrawn 2011)	Control - No leakage Weathered - No Leakage
Water Resistance (Control after Weathering)	AATCC 127 Hydrostatic pressure test (550 mm water column for 5 hours), American Association of Textile Chemists and Colorists	Control - No leakage Weathered - No Leakage
Fire Testing		
Flame Spread Smoke Developed	ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials	Flame Spread 0 Smoke Developed 75
NFPA 285 Compliant	Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components	View over 50 compliant assemblies with various manufacturers at VaproShield.com or Contact VaproShield Technical Team, 1-866-731-7663 opt. 5

TESTING DATA		
PROPERTY	STANDARD	RESULT
Fire Testing (continued)		
Cone Calorimeter Testing Data	ASTM E1354 Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter	Time to ignition: 6 sec Flame Duration: 64 sec Ave. Effective Heat of Combustion: 5.1 MJ/kg Ave. HRR at 60 sec: 62 kW/m ² Ave. HRR at 180 sec: 0 Peak HRR: 36 sec Time of Peak: 36 Total HRR/A: 4.0 MJ/m ²
Canadian Standards		
Multiple	CAN/CGSB 51.32 – Sheathing Membrane, Breather Type	PASS