BlockShield™ SA Plus

a self-adhered air and vapor barrier membrane
Roll Size: 60" Product No.: 37509299, Roof Half Roll Size 30" Product No.: 37509199,
Wall Half Roll Size 30" Product No.: 37503400

Product Description

BlockShield SA Plus is a self-adhered, non-asphaltic, high temperature, air/vapor barrier membrane.

BASIC USE

BlockShield SA Plus can be installed on both roofs and walls in either commercial or residential construction.
Roof Applications: minimum slope of 1/4":12".

MATERIALS

BlockShield SA Plus consists of a proprietary polypropylene film with a very aggressive pressure-sensitive adhesive (PSA). The adhesive is protected by a siliconized release film, which is removed during installation.

BENEFITS

Impermeable to air, water, and moisture vapor.

Ensures crew safety and a healthy building, no VOC exposure, no Red List Chemicals, no primers, or protective gear required for installation.

Durable, tear resistant, and flexible at low temperatures.

Compatible with many building sealants: no adverse reaction with synthetic rubber, butyl, polyurethane, silicone and silane terminated hybrid sealants.

All weather installation membrane can be applied in virtually all weather conditions including below freezing 20°F (minus 6.6°C) and rising without the use of primer.

Non-asphaltic composition for improved health, safety and welfare for workers and occupants

Roof to Wall Continuity create a continuous air/vapor barrier by using BlockShield SA Plus on roofs, walls and rough openings for optimal energy savings.

Wall Benefits:

12 month UV and weather exposure makes membrane ideal for long-term projects.

Roof Benefits:

Simplified, **primer-free installation: Peel, Roll, Go**, saving ` valuable labor time

High pressure wind uplift performance without the need for primer, saving time, labor, and material cost

Designed to withstand **180 days of weather exposure,** minimizing delays, protecting your building

Single-person roll lift: easier jobsite handling and roof loading

Slip resistant, UV stable, walkable, and allows heavy machinery to be used on the surface.

Compatible Substrates and Materials

Roof Substrates

- Gypsum/Fiber Roof Sheathing Boards
- Concrete (bull float finish or better)
- Plywood
- Pre-painted Steel
- Galvanized Metal
- Steel Deck
- Aluminum (Painted/Mill Finish)

Roof Materials

- Metal Roofing
- Cedar Shingles/Shakes
- Slate and Tile
- Single-ply
- Modified BItumen
- Asphalt Shingles

BlockShield SA Plus has been reviewed and approved for use within many roofing manufacturers' assemblies and, in some cases, can be included in full system warranties. For more details, contact your local VaproShield representative.

Wall Substrates

- Exterior Gypsum Sheathing
- Rigid Insulation
- OSB
- Concrete
- Brick
- Plywood
- Metal (Steel, Aluminum)
- Fiberglass and Vinyl Window and Door Frames

Contact VaproShield Technical – if you have additional substrate questions.

Technical Data & Environmental

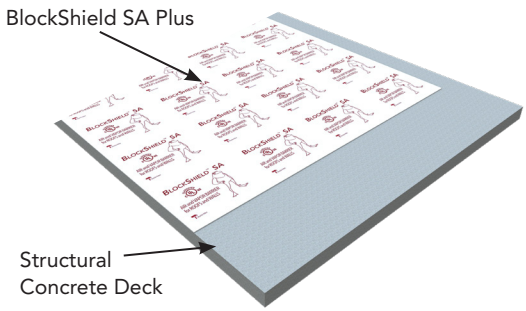
No Red List Chemicals. Contains 18-20% post industrial recycled content.

PHYSICAL PROPERTIES		
PROPERTY	RESULT	
Color	White	
Thickness	10.2 mil (0.26 mm)	
Membrane Weight (without release film)	0.95 oz/yd² (289 g/m²)	
Primer	No Primer Required (See Limitations section for more information)	
VOCs	None	
Field Exposure Before Roof/Cladding Materials	Roofs: 180 days	Walls: 365 days
Minimum Application Temperature	20°F (-6.6°C) and rising	
Service Temperature	minus 40°F (-40°C) - 270°F (132.2°C)	
Warranty	20 year material warranty	

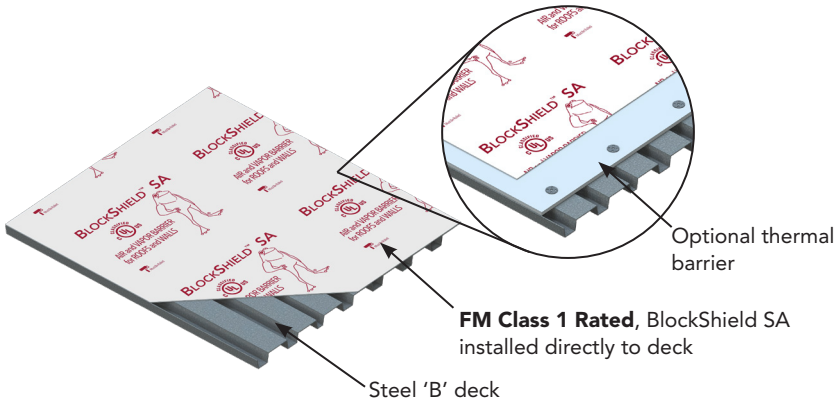
BlockShield SA Plus - 60" Roll Product No.: 37509299, Roof Half Roll 30" Product No.: 37509199, Wall Half Roll 30" Product No.: 37503400

Roof Applications: Low Slope

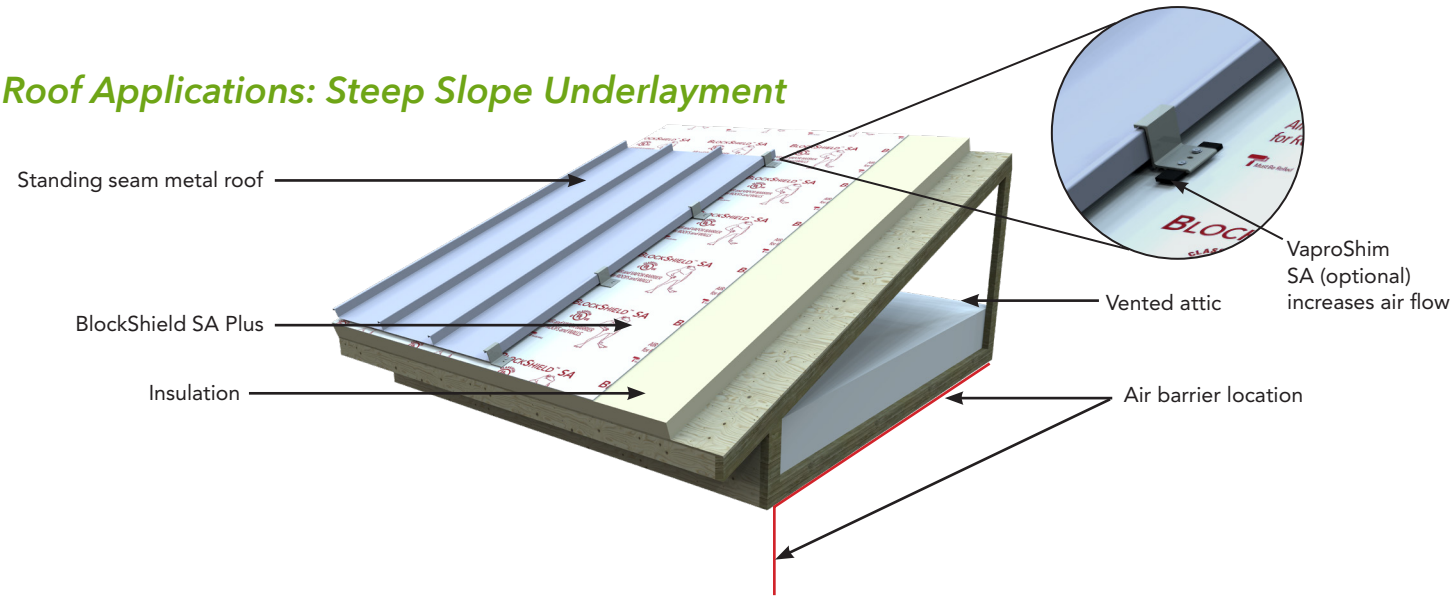
Structural Concrete Roof Decks



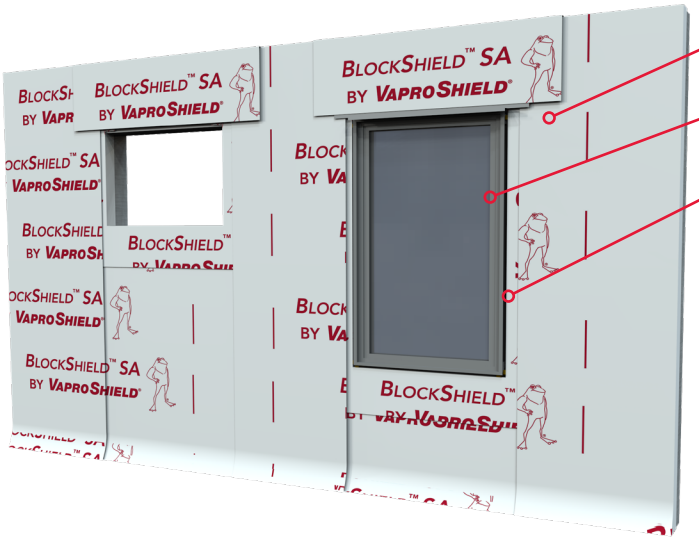
BlockShield SA Plus Installed Directly To Steel Deck



Roof Applications: Steep Slope Underlayment



Wall Application: Air, Water and Vapor Barrier Flashing System



BlockShield SA properly shingled and applied directly to the sheathing

Window with sealant joint and backer rod (by others)

BlockFlashing properly shinged and applied directly to the sheathing

BlockFlashing		
Product	Part No.	Roll Sizes
BlockFlashing Roll 	42505000	6 ½" x 100' (54 S/F) (.17m x 30.5m, 5 S/M)
	42505500	11 ¾" x 100', 98 S/F (.3m x 30.5m, 9.1 S/M)
	42507000	14 ¾" x 100', 123 S/F (.37m x 30.5m, 11.4 S/M)

PHYSICAL PROPERTIES		
PROPERTY	RESULT	
60" Roll Weight	41 lbs (18.6 kg) *With box*	39 lbs (17.7 kg) *Without box*
30" Roll Weight	21 lbs (9.5 kg) *With box*	19 lbs (8.6 kg) *Without box*
Roll Dimensions	60" x 100' (1.5 m x 30.5 m) 30" x 100' (.76 m x 30.5 m)	
Roll Coverage	60" 500 ft² (46.5 m²) gross 30" 250 ft² (23.2 m²) gross	

RELATED LEED CREDITS

VaproShield membranes qualify for LEED credits. Visit VaproShield.com for the latest sustainability and LEED information.

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.

DETAILS

Visit www.VaproShield.com for complete installation instructions and details.

SAFETY

Roof 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 BlockShield SA Plus. Fill voids and gaps in substrate greater than 7/8 inch (22.2 mm) in width to provide an even surface.

BEST PRACTICE INSTALLATION

Install BlockShield SA Plus and related accessories according to manufacturer's separate written installation instructions. Visit www.VaproShield.com to view comprehensive installation instructions and videos.

Roofs Best Practice

All side and head laps must be a minimum of 3" (8 cm). After multiple runs of the product are installed, roll the entire section of installed membrane with a weighted roller, starting from the middle working outward, min. 70 lbs.

Shingled laps are required.

Ventilate as required per code.

Walls Best Practice

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.

Vertical seams should be staggered a minimum of 6" (15 cm), and should not occur directly above or below windows or doors.

Use a roller to activate pressure-sensitive adhesive.

LIMITATIONS

Cold weather may affect the adhesion properties of the pressure sensitive adhesive. It is always recommended to conduct field adhesion testing separately or in conjunction with mock-up construction on the job site. Primers can improve adhesion to substrates. Contact VaproShield Technical for information on compatibility of primers commonly used for cold temperatures at (866)731-7663.

Roofs

BlockShield SA Plus should be covered within 180 days of installation with permanent roofing material.

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.

Walls

BlockShield SA Plus should be covered within 365 days with permanent wall cladding material.

Do not contaminate BlockShield SA Plus with building site chemicals which make it more wettable (e.g., surfactants). This will adversely affect its water resistance and therefore its contribution to the water resistance of the overall wall system.

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
Performance		
Elongation	ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic	MD - 409%
Tensile Strength	ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers—Tension	MD - 16.96 MPa (2460 psi) XMD - 11.87 MPa (1721 psi)
Dry Tensile Strength	ASTM D882 Standard Test Method for Tensile Properties of Thin Plastic Sheeting	MD - 3.85 N/mm (22 lbf/in) XMD - 3.85 N/mm (22 lbf/in)
Elongation at Break	ASTM D882 Standard Test Method for Tensile Properties of Thin Plastic Sheeting	MD - 541% XMD - 617%
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 - 338 N (76 lbf) XMD - 356 N (80 lbf)
Elongation at Break	ASTM D5034 Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)	MD - 120% XMD - 157%
Minimum 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	Deflection 5.84 cm (2.3") Max Load 249 N (56 lbf)
Cold Mandrel Bend Test	AC38 Section 3.3.4	PASS
Weathering Tests	AC38 Section 4.1.2 UV Exposure	PASS
Wear Resistance	Wheelbarrow Testing	PASS
Self Adhering Flashing	AAMA 711-13 Voluntary Specification for Self Adhering Flashing Used for Installation of Exterior Wall Fenestration Products	Compliant
Water Vapor Transmittance		
Water Vapor Transmission Desiccant Method Procedure A 23°C (73.4°F) 0-50 %RH	ASTM E96 Standard Test Methods for Water Vapor Transmission of Materials	0.0173 Perm (grain/h•ft²•inchHg) @23°C 100%RH 0.992 ng/Pa•s•m²
Water Vapor Transmission Using Modulated Infrared Sensor	ASTM F1249 Standard Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor	0.0193 Perm (grain/h•ft²•inchHg) 1.10 ng/Pa•s•m² (23°C 0-50 %RH)
Water Ponding	ICC-ES AC48 Acceptance Criteria for Self-Adhered Roof Underlayments for use as IBarriers	PASS
Air Resistance Testing		
Air Permeance	ASTM E2178 @75 Pa Standard Test Method for Air Permeance of Building Materials	0.00912 L/s•m² @ 75 Pa (0.0018 cfm/ft² @ 1.57 psf)
Air Permeance	CAN/ULC-S741-08 (2020) Standard for Air Barrier Materials	PASS
Air Leakage Rate	CAN/ULC-S742-11 Standard for Air Barrier Assemblies	Class A1
Water Resistance Testing		
Nail Sealability	ASTM D1970 Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection Section 7.9 referring to ASTM D7349 protocol 4 with modifications	PASS
Water Resistance (Control after Weathering)	AATCC 127 Hydrostatic pressure test (550 mm water column for 5 hours), American Association of Textile Chemists and Colorists	PASS
Fire Testing		
Flame Spread Smoke Developed	ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials	Class A Flame Spread 5 Smoke Developed 15
UL	UL790 Test Method of Fire Tests for Roof Coverings, CAN/ULC-S107	PASS
Surface Burning Characteristics	CAN/ULC-S102 Protective Underlayment, Permeable to Allow Drying, Provides an Air Barrier	Flame Spread Rating: 5 Smoke Developed Value: 15

COMMERCIAL ROOFING AIR/VAPOR BARRIER
FLORIDA BUILDING CODE APPROVED
NEMO EVALUATED FBC FL 46829

FM APPROVED

NEMO | cert.® CERTIFIED

CLASSIFIED C UL US

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)