



## 1. Product Name

**WrapShield RS™ Rain Screen  
Mechanically Attached, Water Resistive (WRB)  
Vapor Permeable Air Barrier (AB) Membrane  
with Built-In Rain Screen Drainage Matrix and  
Integrated Tape at the Horizontal Seams**

## 2. Manufacturer

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## 3. Product Description

### BASIC USE AND APPLICATIONS

**WrapShield RS** Rain Screen with built-in rain screen drainage matrix is a mechanically attached high performance Water Resistive Barrier (WRB) and Air Barrier (AB) membrane with integrated tape at the horizontal seams. The built-in drainage matrix creates a cavity for wall cladding systems such as wood siding, metal siding, masonry veneers, stucco, Mechanically Attached EIFS and veneer stone facades.

### BENEFITS

**WrapShield RS** Rain Screen is a multi-functional product. The Water Resistive Vapor Permeable Air Barrier sheet membrane provides excellent liquid water holdout while preventing air leakage and allowing the wall assembly to breathe or 'dry-out' as necessary, to meet the conditions of seasonal changes for each climate zone. The built-in high performance rain screen drainage matrix maintains an unimpeded vertical drainage plane behind the cladding. The incorporation of the integrated tape at the horizontal seams increases ease of installation of a WRB / AB system, eliminating tape failure, reverse laps and additional associated costs. **WrapShield RS** Rain Screen creates the desired rain screen cavity in one installation step. With a vapor permeance rating of greater than 60 perms **WrapShield RS** Rain Screen with built-in rain screen drainage matrix prevents air leakage and allows the wall assembly to breathe or 'dry-out' as necessary to adapt to the seasonal changes of

the building which helps to ensure good indoor air quality while reducing conditions conducive to mold, mildew, lumber distortion and metal corrosion.

### Multiple Substrate Compatibility:

- Exterior Gypsum
  - Semi-Rigid Insulation
  - Precast Concrete
  - Concrete Block
  - Cast-in-place Concrete
  - Plywood
  - Pre-painted Steel
  - Galvanized Metal
  - Aluminum (Painted/Mill)
  - Anodized Aluminum
  - Rigid Vinyl
  - OSB
- Contact VaproShield Technical if you have additional substrate questions.

### MATERIAL

**WrapShield RS** Rain Screen base layer is WrapShield® IT Integrated Tape manufactured from vapor permeable spun bond polypropylene fabric with a six-inch integrated tape at the horizontal seam. The FT Plastic Rain Screen drainage matrix is bonded to the WrapShield IT WRB/AB in the factory.

### SIZE: RAIN SCREEN AVAILABLE IN 2 DEPTHS (3mm, 7mm):

Membrane Size: 59" Gross (53" Net) x 37.5' Roll  
(1.5M by 11.4M)

Coverage Per Roll: 184.5 Gross SF or 165 Net SF of  
Drainage Matrix

### COLOR:

- Membrane **Orange/Green RS** Drainage Matrix  
**3mm (+/- 1mm); 1/8"**
- Membrane **Orange/ Black RS** Drainage Matrix  
**7mm (+/- 1mm); 1/4"**

## 4. Technical Data

**WrapShield RS** Rain Screen membrane is tested in accordance with ICC-ES AC 38 criteria to meet IBC and IRC requirements for Weather Resistive Barriers.

### SUSTAINABLE DESIGN BENEFITS

**WrapShield RS** Rain Screen can remain exposed for up to 180 days prior to installation of cladding system. The rain screen cavity created by the built-in rain screen matrix, greatly increases the drying capacity of the building envelope. **WrapShield RS** Rain Screen protects against water intrusion and is vapor permeable, allowing the building materials that may have become wet during the construction phase to dry out, reducing the risk of wood rot, deterioration or corrosion. The air barrier function of the **WrapShield RS** Rain Screen system increases the energy efficiency of the building envelope, as well as prolonging the life of the structure by reducing air borne moisture loading.

## RELATED LEED CREDITS

**WrapShield RS** Rain Screen Integrated Tape 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.

## 5. Installation

### PREPARATION

- **WrapShield RS** Rain Screen can be installed over damp substrates to limit further water intrusion and to allow the substrate to dry during the construction period. All surfaces should be, sound, clean, and free of oil, grease, dirt, excess mortar or other contaminants detrimental to the installation of the water resistive air barrier membrane and flashings. Fill large voids and gaps in substrate to provide an even surface. Strike masonry joints full-flush.
- Use VaproShield’s two component flashing system, VaproFlashing™ or VaproFlashing SA™ Self-Adhered and VaproLiqui-Flash™ vapor permeable water resistive flashing system for window and door rough openings.

See [www.VaproShield.com](http://www.VaproShield.com) for complete installation instructions.

### FASTENING GUIDELINES

- **WrapShield RS** Rain Screen is mechanically fastened to the substrate. Stainless steel staples or cap nails may be used just above the horizontal tape that will be covered by the shingling of the next layer of material. See [www.VaproShield.com](http://www.VaproShield.com) for complete installation instructions
- DO NOT place fasteners in the integrated tape overlap area, prior to removal of the tape release film. Fasteners placed in the overlap area only if they do not prevent the removal of the integrated tape release film or after the release film has been removed.
- Join horizontal seams by pulling and removing release films simultaneously (from the upper and lower courses of the overlapping membranes). Apply hand pressure to engage horizontal tape joint.
- At vertical seam locations, apply 11-3/4” wide VaproFlashing™ SA Self-Adhered vertically and directly on the substrate at the vertical seam location.
- Apply VaproBond™ Adhesive Sealant to the VaproFlashing SA Self-Adhered directly behind **WrapShield RS** Rain Screen vertical seam to

seal the vertical seams.

Apply **WrapShield RS** Rain Screen seams as a butt joint, centered over the VaproFlashing and onto the VaproBond™ Adhesive Sealant. Hand smooth seam to insure a weather tight seal.

See [www.VaproShield.com](http://www.VaproShield.com) for complete installation instructions.

### BEST PRACTICE OVERVIEW

- Horizontal overlaps must be at 6” (15 cm) in order to properly seal the Integrated Tape joint. Vertical overlaps are to be placed onto the VaproBond™ Sealant (which is applied to the vertical length of the VaproFlashing SA), to provide a continuous air barrier seal. Vertical overlaps are to be staggered a minimum of 24” and should not occur directly above or below windows or doors.
- Always install **WrapShield RS** Rain Screen in a “weatherboard” or “shingle fashion” with the upper courses lapped on top of the courses below.
- For stucco applications install a layer of paperbacked lath over the **WrapShield RS** Rain Screen to prevent blockage of drainage matrix during Stucco installation.

### STORAGE AND HANDLING

- Rolls should be stored on a clean, dry, level surface, either flat or upright and kept under cover.

### LIMITATIONS

- The **WrapShield RS** Rain Screen membrane can remain exposed for up to 180 days prior to installation of cladding system.
- Contamination of **WrapShield RS** Rain Screen membrane with building site chemicals, asphaltic materials, surfactants, or cleaning compounds, could adversely affects its water resistance and therefore its contribution to the water resistance of the overall wall system. If contaminated, replace affected membrane.

## 6. Availability

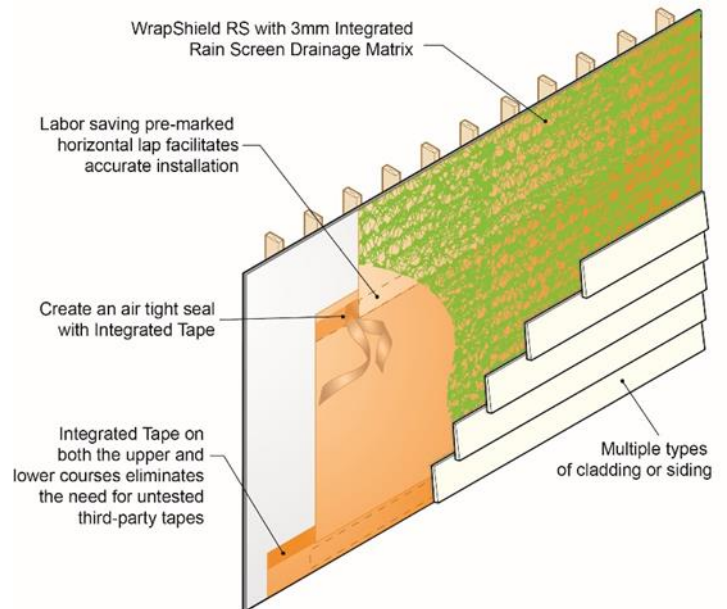
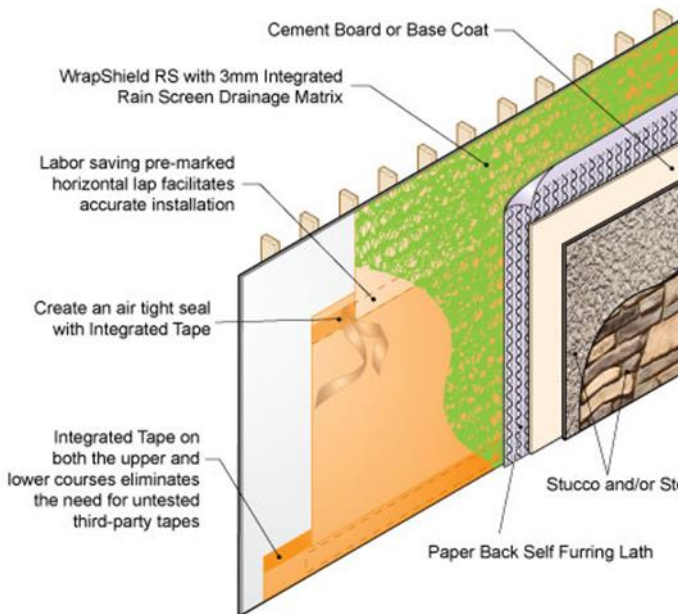
VaproShield products are available throughout North America, Central, South America and New Zealand.

## 7. Warranty

A 20 Year Product Warranty is available.

**WRAPSHIELD RS® RAIN SCREEN Testing**

PROPERTY	TEST/STANDARD	RESULT
Roll Length		37.5' (11.4 m)
Roll Width		Gross: 59" (1.5 m) Net: 53" (1.35 m)
Nominal Thickness	Calibrated Micrometer	3 mm Matrix: Nominal 1/8" (3.56 mm) 7 mm Matrix: Nominal 1/4" (7.56 mm)
Basis Weight	Electronic Weigh Scale	3 mm Matrix: 5.9 oz/yd <sup>2</sup> (200 g/m <sup>2</sup> ) 7 mm Matrix: 7.3 oz/yd <sup>2</sup> (247 g/m <sup>2</sup> )
Roll Weight		23 lbs (10.5 kg) packaged
Application Temperature		No Limitations
Service Temperature		-40 °F to 250 °F ( -40 °C to 121 °C )
Water Resistance	AATCC - 127	PASS (22 in. head of water – 5 hrs.)
Air Permeance	ASTM E 2178	PASS <0.0001 cfm/ft <sup>2</sup> @ 1.57 psf (<0.0004 L/s m <sup>2</sup> @ 75 PA)
Air Barrier Assembly	ASTM E 2357 - 05	PASS <0.002 cfm/ft <sup>2</sup> @ 1.57 psf (<0.01 L/s m <sup>2</sup> @ 75 PA)
Water Vapor Permeability (perms)	ASTM E96 Method B	66.9 perms (grains/ft <sup>2</sup> •hr•inHg) 444.9 WVTR (g/m <sup>2</sup> •24h)
Water Vapor Transmission Rate (WVTR)	ASTM E398-13	71.91 perms (grains/ft <sup>2</sup> •hr•inHg) 498.32 WVTR (g/m <sup>2</sup> •24h)
Breaking Strength/Elongation	ASTM D5034	MD 100.1 lbf (445.3 N) CD 86.1 lbf (383.0 N)
Flame Spread	ASTM E84	5 – Class A
Smoke Developed Index	ASTM E84	175 – Class A



Reduce the incidence of moisture related damage with WrapShield RS 3mm behind conventional siding. The 3mm matrix does not disrupt the level plane needed for siding, trim and window installation.

Create an essential drainage matrix behind stucco by installing the cost effective WrapShield RS 3mm. No change to design or installation practices is required.