



Vapor Permeable Self-Adhering Air and Water Resistive Barrier



## **Description**

Xci VP-SA WRB is a composite membrane designed for use in above-grade wall assemblies to function as a weather resistive barrier. The specially engineered breathable film is fully coated on one side with a permeable adhesive protected with a silicone release liner. The barrier will adhere firmly when pressed against the substrate and will permit the passage of water vapor while performing as a barrier to air and water.

Xci VP-SA WRB is compatible with Hunter Xci polyiso products, the Xci AEGIS Wall System™, and other building materials such as gypsum sheathing, concrete, and CMU. Surface preparation with primer or contact adhesive may be required in certain circumstances.

## **Features and Benefits**

- Composition and low fuel contribution enable use in many NFPA 285 compliant assemblies
- Fully-adhered membrane prevents water migration and air infiltration versus mechanically attached barriers
- Breathable membrane allows passage of water vapor
- Lightweight, self-adhering rolls allow for fast, easy installation
- Printed facer provides easy product identification
- No spray equipment or mil-thickness measurements required

#### **Project Conditions**

Building codes and project specifications require continuity of air barrier installation. It is the installer's responsibility to understand the extent and sequencing of air barrier installation on the project. Do not proceed with installation until substrate and project conditions conform to requirements specified in this document. All surfaces accepting Xci VP-SA WRB shall be clean, dry, and of sound condition. Verify that wall assemblies are dried in, such that water intrusion will not occur from above, behind or around the membrane installation. Manage construction-generated moisture by ventilating and de-humidifying the interior. Gaps and cracks exceeding ¼" in width shall be filled with materials and technique approved by Hunter Panels. As Xci VP-SA WRB shall not span any gap in excess of ¼", electrical/mechanical penetrations, structural steel penetrations, columns/beams, expansion/seismic joints, shelf angles, tie-ins to fenestration and transitions to other building assemblies may require extra work and materials to provide suitable surfaces for continuous installation of Xci VP-SA WRB.

# **Typical Properties**

Property	Method	Results
Peel Adhesion	ASTM D903	5 pli typical value applied over DensGlass with recommended primer
Pull-off Adhesion	ASTM D4541, modified 3.75" wood puck	>16 PSI on CMU Dens- Glass and OSB (AF from Primer)
Tear Initiation and Propagation	ASTM D4073	>30 lbf
Surface Burning	ASTM E84	Flame Spread Index - 10 Smoke Spread Index - 5
Water Penetration	ASTM E331	Passes 10 PSF after 15 minutes
Heat Release Measured by Cone Calorimeter	ASTM E1354	Effective Heat of Combustion: 16.82 MJ/kg Peak Heat Release Rate: 183 kW/m² Total Heat Release: 6.1 MJ/m²
Color		Gray with black print
Nominal Thickness	ASTM D1177	0.023 inch (23 mils)
Fabric Composition		Multi-layer Polyester Composite
Adhesive Composition		Pressure-sensitive, permeable acrylic, full coverage of fabric
Tensile Strength	ASTM D882	Minimum 40 lbf/in width
Lap Peel Strength	ASTM D1876	1.0 lbf/in width, minimum
Water Resistance to Hydrostatic Pressure	AATCC-127-03, mod. 22"[55 cm] column of water for 5 hours	No leaking through membrane or 2" bonded lap
	ICC-ES AC-38	Pass
Water Vapor Permeance of membrane	ASTM E96 B (Water Method) ASTM E96 A (Desiccant Method)	10.53 perms, minimum 9.05 perms, minimum
Water Vapor Permeance of Contact Adhesive <sup>†</sup>	ASTM E96B (water method)	15 Perms, minimum
Air Permeance	ASTM E2178	<=0.001 L/s*m <sup>2</sup> @ 75 Pa [0.0002 CFM/ft <sup>2</sup> @ 1.57 PSM]
Air Leakage Through Assembly	ASTM E 2357	Maximum 0.017 L/s*m² @ 75 Pa [0.0034 CFM/ft² @ 1.57 PSF]
Low Temp Flexibility	ASTM D1970 180° bend over 1" mandrel	No cracking at -20°F
Application Temperature		20°F to 180°F

<sup>†</sup>Applied on exterior side of DensGlass Gold. Bare substrate measured 29.75 Perms.

# **Hunter Panels** Xci VP-SA WRB

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## **Surface Preparation**

Apply contact adhesive, such as CAV-GRIP, as needed to surfaces accepting Xci VP-SA WRB. Follow the application instructions on the contact adhesive product data sheet. If weather conditions are dry and substrate and ambient temperature is 40°F or higher, preparation with contact adhesive can be omitted on wood and gypsum sheathing products and Hunter Xci continuous insulation products including Xci Foil, Xci Foil Class A, Xci CG, Xci CG Class A, Xci Ply, Xci Ply Class A, or Xci NB.

Note: Solvent-based contact adhesives are generally NOT acceptable for use with Xci VP-SA WRB because these contact adhesives are impermeable. Impermeable solvent-based contact adhesives may be used in applications where the vapor-permeable feature of Xci VP-SA WRB is not necessary, such as installation over Xci Foil or Xci Foil (Class A).

### **Substrates**

#### **Foam Sheathing**

Sheathing boards shall be flush at joints. Sheathing boards shall also be secured to the structure according to building code and sheathing manufacturer's requirements. Sheathing boards shall be repaired or replaced if inspection reveals moisture damage, mechanical damage or if sheathing boards have exceeded the exposure duration or exposure conditions as required by the sheathing manufacturer. Fill all joints exceeding  $\frac{1}{4}$ " in width with approved sealant and strike flush.

## Wood Products: OSB, Plywood, FRT Wood, Lumber

Wood sheathing inspection carries the same protocol given for foam sheathing. In addition, moisture content, measured with a wood moisture meter in the core of the substrate, shall be below 20%. Do not cover any wooden materials with Xci VP-SA WRB if moisture content is 20% or more. Do not encapsulate wood (such as blocking/nailers) with Xci VP-SA WRB as this will cause premature rot.

## **Gypsum Sheathing**

Gypsum sheathing inspection follows the same protocol as given for both foam sheathing and wood sheathing. When installing Xci VP-SA WRB over gyp-sheathing with glass-mat facers, coverage rates for contact adhesives and primers will depend on the porosity and texture of the sheathing and can vary substantially by brand. It may be necessary to decrease coverage rate or apply multiple coats. Contact adhesives and primers shall be allowed to dry completely before additional coats are applied or membranes installed. Glass-mat facers can take longer to dry than other substrates and lower temperatures will extend drying time. Multiple adhesion tests should be performed randomly to verify proper application of primer and ensure a successful application.

#### Concrete

Shall be cured in place for 7 days minimum. It shall be smooth, with sharp protrusions such as form joints ground flush. Honeycomb and holes/cracks exceeding ¼" across in width shall be filled with grout or mortar.

#### **Concrete Masonry Unit (CMU)**

Mortar joints shall be struck flush and shall be free of voids exceeding ¼" across. Mortar droppings shall be removed from brick-ties and all other surfaces accepting Xci VP-SA WRB. Mortar joints shall be allowed to cure 3 days minimum prior to installation of Xci VP-SA WRB.

#### Installation

Install Xci VP-SA WRB in horizontal rows (preferred) or in vertical runs. Wipe dust or debris from film side of product with a clean, dry rag to assist in forming tight laps. Avoid forming wrinkles and air pockets. Press membrane firmly to substrate with a J-roller, especially at laps, corners and terminations. Overlap adjoining pieces of Xci VP-SA WRB a minimum of 3". Use Xci VP-SA WRB strips for detailing. Sequence the installation to provide shingled laps. Membrane shall bear minimum 3" onto each side of transitions such as joints, angle changes and substrate changes. Membrane shall bear 6" minimum onto adjacent membrane systems such as foundation waterproofing or roofing. Install self-adhered flashing details directly to substrate, not to Xci VP-SA WRB. Use self-adhered flashings to wrap window openings, to treat pipe/duct penetrations and to cover expansion joints as shown in Xci VP-SA WRB details. Seal termination of Xci VP-SA WRB onto self-adhered flashings with approved termination sealant. Self-adhered flashings and termination sealants such as Aluma-Grip 701, Dow Corning 758, and Pecora AVB Silicone Sealant are compatible with Xci VP-SA WRB. Dusty conditions and installation temperatures below 40°F may require prepping laps with a contact adhesive such as CAV-GRIP.

## **Repair and Protection**

Repair damage to barrier by removing loosely adhered material and re-covering with Xci VP-SA WRB patch, extending beyond the damage by at least 6" in all directions. Where repair patch is to be installed, clean debris from surfaces of the old Xci VP-SA WRB and prepare with a contact adhesive such as CAV-GRIP. Seal terminations of repair patch with approved flashing or termination sealant. If multiple sheets are used in repair/re-cover, offset seams of new installation from underlying Xci VP-SA WRB by 12" minimum. Xci VP-SA WRB is not intended for permanent outdoor exposure and should be covered as soon as possible after installation, not to exceed 180 days.

#### Limitations

- Do not allow any sealants or liquid membranes to contact Xci VP-SA WRB except Aluma-Grip 701, Pecora AVB Silicone Sealant, Dow Corning 758 or other product approved by Hunter Panels
- Do not proceed with installation unless ambient and substrate temperature are 20°F or above
- For exterior use only; will not perform as a water resistive barrier in negative side applications
- Do not install below grade, or in areas where ponding water is expected
- Not intended for traffic resistance or as a wearing surface
- . Do not install on roofs
- Do not install over un-cured sealants

#### **Packaging**

**Xci VP-SA WRB Full Rolls** 48" X 100' roll, 1 roll/box

Xci VP-SA WRB Slit Rolls

4" X 100' roll, 6 rolls/carton 9" X 100' roll, 2 rolls/carton 12" X 100' roll, 2 rolls/carton

## Storage

Store Xci VP-SA WRB in a protected area below 90°F. In cold weather, condition rolls to 50°F or warmer to facilitate use. Shelf life in original, un-opened packaging is 1 year.

