



1. Product Name
Vortec™

2. Manufacturer

Valéron Strength Films
 9505 Bamboo Rd.
 Houston, TX 77041
 (800) 825-3766
 (713) 996-4293
 Fax: (713) 690-2746
 E-mail: info@valeron.com
 www.valeron.com

3. Product Description

BASIC USE

Vortec drainage barrier has a 3D surface pattern that disperses moisture, provides airspace for drainage and speeds drying behind brick, stucco, hardboard, vinyl, wood, cement sidings, cultured stone and EIFS. Multi-directional channels allow moisture to move downward regardless of installation direction. Vortec resists ponding behind the cladding, reducing chances of mold.

COMPOSITION & MATERIALS

Vortec is an engineered vertical drain sheet offering superior outdoor durability and strength. It is manufactured of 100% UV enhanced, cross-laminated high density polyethylene.

SIZES

Vortec is available in standard widths of 60" (1524 mm) for 1000 ft² (93 m²) of coverage (5' x 200' (2 x 61 m) roll sizes). Also available in 10' x 100' (3 x 30 m) rolls.

COLOR

Vortec is available in White.

BENEFITS

- Creates a stand-off airspace for better draining
- Multi-directional pattern allows faster application
- Promotes better draining, reduces ponding
- 3D pattern disperses water as it drains
- Semi-permeable to allow proper vapor migration
- Lightweight, translucent rolls offer easier installation



Easy to handle 5' (1.5 m) wide rolls

- Tear, snag and puncture resistant

LIMITATIONS

Vortec is intended for exterior wall applications and is not for use in applications in which temperatures will exceed 200 degrees F (93 degrees C) or as an alternative to asphalt-saturated organic felt underlayment in roofing applications.

4. Technical Data

APPLICABLE STANDARDS

ASTM International

- ASTM D774 Standard Test Method for Bursting Strength of Paper
- ASTM D779 Standard Test Method for Water Resistance of Paper, Paperboard, and Other Sheet Materials by the Dry Indicator Method
- ASTM D882 Standard Test Method for Tensile Properties of Thin Plastic Sheeting
- ASTM D1929 Standard Test Method for Determining Ignition Temperature of Plastics
- ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials
- ASTM E96 Standard Test Methods for Water Vapor Transmission of Materials
- 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

- ASTM E1677 Standard Specification for an Air Retarder (AR) Material or System for Low-Rise Framed Building Walls
- ASTM E2273 Standard Test Method for Determining the Drainage Efficiency of Exterior Insulation and Finish Systems (EIFS) Clad Wall Assemblies

Federal Test Method Standard (FTMS) - FTMS 292 Tear Strength

Technical Association of the Pulp and Paper Industry (TAPPI)

- TAPPI T41D Basis Weight
- TAPPI T433 Water Resistance of Sized Paper and Paperboard (Dry Indicator Method Acid-Soluble Iron in Paper)
- TAPPI T460 Air Resistance of Paper
- TAPPI T470 Edge Tear Resistance of Paper

APPROVALS

Vortec is approved for use in the following Building Code Evaluation Reports:

- ICC ES Acceptance Criteria (AC) - ICC ESR-1609
- Uniform Building Code (UBC)
- Canadian Construction Materials Centre (CCMC) - CCMC Evaluation Report 13259-R

PHYSICAL/CHEMICAL PROPERTIES

See Table 1. Complete test data, reports and other information are available upon request.

FIRE PERFORMANCE

- Flamespread index < 25; smoke developed index < 450 (ASTM E84)



Multidirectional drainage installs easily with less waste.

5. Installation

METHODS

To attach Vortec to wood, foam or fiberboard sheathing, or to exterior gypsum board, use fasteners that are long enough to penetrate into the stud or nail base material.

1. Start 2' - 3' (610 - 914 mm) from a lower corner and unroll Vortec in either direction, print side out. Wrap Vortec around corner and continue nailing or stapling while moving around the structure.

2. Secure Vortec firmly in place by fastening it every 16" or 24" (406 or 610 mm) along the horizontal header, sill plate and vertical studs. Place extra fasteners around each opening to be cut. Install Vortec "shingle-lap" fashion, with the higher piece lapped over the outside of the lower piece. Seams or joints between overlapping layers should be handled according to local building codes. At roof sections, lap the multidirectional drainage barrier over the entire top of any step-flashed areas against the wall.
3. Make an inverted Y cut in the wrap at the window's rough opening. Make diagonal cuts at the top of the rough opening corners.
4. Fold the 3 flaps in through the opening, fastening them inside with staples set approximately every 6" (152 mm). Fold the top flap up and tape temporarily.
5. Install the bottom flashing over the wrap. Note - Valéron Strength Films recommends the use of flashing material. Windows must be installed in accordance with manufacturer's recommended installation procedures.
6. Install window.
7. Install the side flashing over the side window flanges.
8. Install the head flashing over the top window flange and extend it out 3" - 4" (76 - 102 mm) over the side flashings.
9. The bottom window flange should be over the flashing, as described in Step 5 above.



Resists tears, snags and punctures and is UV resistant for up to 365 days.

10. Remove the temporary tape from the top drainage barrier flap and apply over the installed head flashing.

Installing Vortec With Existing Windows

1. Create a top flap so that the head flashing can be installed under the drainage barrier and over the flange.
2. Extend the head flashing 3" - 4" (76 - 102 mm) to each side with the flap taped over it.

Table 1 Physical/Chemical Properties

Thickness, in (mm)	Base film - 0.003 (0.076) Vortec - 0.028 (0.71)
Basis weight, lb/Msf (in ² /lb)	14.5 (9930)
Tensile strength (ASTM D882)	27 lbs/inch MD, 24 lbs/inch CD - Exceeds standard
Tear resistance (FIMS 292, TAPPI T470), grams	2500
Air porosity (TAPPI T460)	8.1 sec/100 cc
Water vapor transmission (ASTM E96), perms (grams)	6.5 (50) - Exceeds standard
Water resistance (AC 38, ASTM D779, TAPPI T433)	88 minutes - Exceeds standard
Drainage efficiency (AC 235, ASTM E2273)	93% - Exceeds standard
Surface burning characteristics (ASTM E84)	
Flamespread	Class A
Indexed smoke developed value	Class A
Use temperature maximum, degrees F (degrees C)	200 (93)
Use temperature minimum, degrees F (degrees C)	-70 (-57)
UV exposure rating, days	365
Specific gravity	0.91 - 0.97



3. On the remaining 3 sides, trim the drainage barrier close to the window flange and secure it to the flange with tape or caulk in a shingled fashion for positive drainage.

PRECAUTIONS

Vortec is not intended to perform the function of an exterior siding product and should be covered as soon as possible.

BUILDING CODES

Installation must comply with the requirements of all applicable local, state and federal code jurisdictions.

6. Availability & Cost

AVAILABILITY

Vortec is available throughout the U.S. Contact Valeron Strength Films at 1-800-VALERON (800-825-3766), (713) 996-4293, or online at www.valeron.com for local distributors and delivery information.

COST

Contact Valéron Strength Films for local distributors who can provide installed cost and delivery information.

7. Warranty

Valéron Strength Films will replace any Vortec material that is damaged during installation by weather or normal handling if it is installed according to the procedures published by Valéron Strength Films. Complete warranty terms and conditions are available from the manufacturer.

8. Maintenance

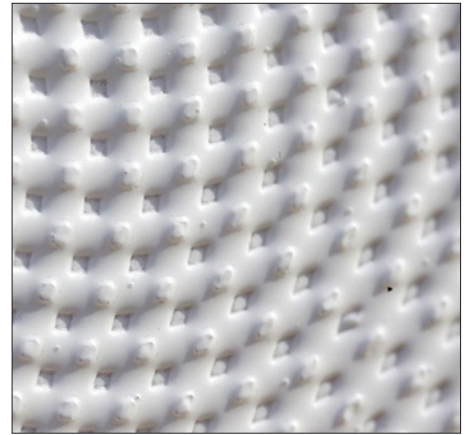
None required.

9. Technical Services

Technical assistance, including more detailed information, product literature, test results, project lists, assistance in preparing project specifications and arrangements for application supervision, is available by contacting Valéron Strength Films.

10. Filing Systems

- Reed First Source®
- MANU-SPEC®
- Additional product information is available from the manufacturer upon request.



Engineered surface pattern facilitates moisture drainage.