

TECHNICAL DATA SHEET

DELTA®-VENT S / PLUS

Water-resistant Barrier & Air Barrier

MATERIAL

DELTA®-VENT S is a 3-layer water-resistant barrier (WRB) and air barrier. Its two outer layers are made of a high strength spun-bonded polypropylene (PP) fabric. They are thermally bonded to a highly vapor permeable, watertight polymeric middle layer. The fabric layer on the lower side protects the WRB against damage (e.g. roughly sawn sheathing). The matte gray color of DELTA®-VENT S prevents blinding glare during installation.

PROPERTIES

DELTA®-VENT S is a highly vapor permeable WRB, allowing moisture within the building enclosure to escape through the membrane via diffusion. Its high permeability and air-tightness make it an ideal air and water-resistant barrier membrane for energy-efficient construction. The product is watertight and protects the building enclosure from wind-driven rain. DELTA®-VENT S is very lightweight and tear-resistant. This membrane withstands the rigors of jobsites, as well as tough wind and weather.

APPLICATION

DELTA®-VENT S is installed outboard of the sheathing prior to the application of the final cladding system. Do not use sealants, flashings, products or chemicals that contain surfactants on DELTA® water-resistant and air barrier membranes because they can adversely affect the water hold-out properties of any PP spunbond-based water-resistant barrier. Such products may include asphaltic materials, various chemicals, acid-based silicones, cleaning compounds, and certain formulations of liquid flashings, e.g. specific STP-based materials. Always confirm compatibility with the manufacturer's published technical data sheets and with the manufacturer's technical department. DELTA® Accessories complement the WRB / Air Barrier installation. DELTA®-VENT S is also available in the PLUS version with a self-adhesive edge.



DELTA® products support sustainable and energy-efficient building practices, including efforts toward achieving LEED® certification (LEED® for New Construction & Major Renovations, LEED® for Core and Shell, LEED® for Existing Buildings and LEED® for Homes).

For technical support, call our technical support team at 1-888-4DELTA4 (1-888-433-5824) extension 326, or visit www.dorken.com.

ICC ESR-2932 DELTA® Water-resistant Barriers
CCMC 13479-R

Technical Data

Product name	DELTA®-VENT S	
Color	gray	
Water vapor transmission	472 g/m ² /24 h	ASTM E96-05, Proc. A
	820 g/m ² /24 h	ASTM E96-05, Proc. B
Vapor permeance	69 perms [grains/h/ft ² /in Hg]	ASTM E96-05, Proc. A
	120 perms [grains/h/ft ² /in Hg]	ASTM E96-05, Proc. B
Breaking strength	MD 69.9 lb	ASTM D5034-95 (2001)
	CD 67.3 lb	
Elongation at break	MD 44.6 %	ASTM D5034-95 (2001)
	CD 74.1 %	
Tear resistance	MD 1078 g	ASTM D1922-06a
	CD 1588 g	
Trapezoid tearing strength	MD 21.6 lb	ASTM D4533-04
	CD 14.6 lb	
Puncture resistance	Pass	TAPPI-T803
Water resistance: Hydrostatic pressure test	Pass (>5 hours)	AATCC 127-1985
Water penetration resistance (Water Ponding Test)	Pass Meets requirements of AC38 for 60 minute Grade D water-resistant barrier	ICC AC38, 4.2.2, June 2011 (CCMC MF072510.3, Section 6.4.5)
Water penetration resistance	642.8 cm	CAN/CGSB-4.2 #26.3-95 / ISO 811:1981
Water impact penetration resistance	no water passing	AATCC 42-2000
Bent test	Pass (no cracking)	ICC AC 38, 3.3.4
Flame spread	25	ASTM E84-09
	NFPA Class A; UBC Class I	
Smoke developed	105	ASTM E84-09
	NFPA Class A; UBC Class I	
UV exposure	Pass (> 90 % tensile retention after UV exposure)	CCMC 07251003-2008 § 5.1.2.3 (UV exposure according to ASTM G154-06)
Heat aging	Pass	CCMC 07251003-2008 § 5.1.2.4
Air permeance	Pass < 0.02 l/(s x m ²) @ 75 Pa < 0.004 cfm/ft ² @ 1.57 psf	ASTM E2178
Linear dimensional changes	Pass (< 3 %)	ASTM D1204-02
Temperature range	-40 °F to +176 °F (-40 °C to +80 °C)	
Roll weight	approx. 24 lb (11 kg)	
Roll length	164' (50 m)	
Roll width	4' 11" (1.5 m)	
Maximum UV (sunlight) exposure	Always cover as soon as possible. Maximum exposure 6 weeks.	
DELTA® Accessories	DELTA®-MULTI BAND 2" x 82' DELTA®-FLEXX-BAND 4" x 33' DELTA®-TILAXX 310 ml cartridge	