



BC BUILDING PRODUCTS
THE ENVELOPE SPECIALISTS

TECHNICAL DATA SHEET

Delta Vent S

Manufacturer: Dörken Systems Inc.

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TECHNICAL DATA SHEET

DELTA®-VENT S / PLUS

Water-resistive Barrier & Air Barrier

MATERIAL

DELTA®-VENT S is a 3-layer water-resistive barrier (WRB) and air barrier. Its two outer layers are made of a high strength spunbonded polypropylene (PP) fabric. They are thermally bonded to a highly vapor permeable, watertight thermal polyurethane (TPU) middle layer. The fabric layer on the lower side protects the WRB against damage (e.g. roughly sawn sheathing). The black 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-resistive barrier membrane for energy-efficient construction. DELTA®-VENT S not only passes, but also dramatically exceeds the most stringent requirements of the Air Barrier Association of America (ABAA) and of the National Building Code of Canada (NBC 2010, 2015, 2020) based on the results of ASTM E2357 and CAN/ULC-S742 Standard Test Method for Determining Air Leakage of Air Barrier Assemblies. 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. Use DELTA®-LFS 100% silicone for liquid flashing and sealant applications. Do not use sealants, flashings, products or chemicals that contain surfactants on DELTA® water-resistive and air barrier membranes because they can adversely affect the water hold-out properties of any PP spunbond-based water-resistive 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 1-8884DELTA4 (1-888-433-5824) extension 4324, or visit www.dorken.com.

ICC ESR-2932 DELTA® Water-resistive Barriers

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A DÖRKENGROUP company

Technical Data

Product name	DELTA®-VENT S	
Color	Black	
Moisture vapor transmission	324 g/m ² /24 h	ASTM E96/E96M-15, Proc. A - Dessicant
	279 g/m ² /24 h	ASTM E96/E96M-16, Proc. B - Water
Vapor permeance	47 perms [189.5 grains/h/ft ² /in Hg]	ASTM E96/E96M-15, Proc. A - Dessicant
	50 perms [282.5 grains/h/ft ² /in Hg]	ASTM E96/E96M-16, Proc. B - Water
Air Leakage of Air Barrier Assemblies	Class A1 Meets the recommendations of NBC 2010, 2015, 2020 and ABAA requirements.	CAN/ULC-S742-11
Breaking strength	MD 106.5 lb/474 N	ASTM D5034-95 (2001)
	CD 95.8 lb / 426 N	
Breaking elongation	MD 76.1 %	ASTM D5034-95 (2001)
	CD 90.0 %	
Water resistance: Hydrostatic pressure test	Pass (>5 hours)	AATCC 127-1985
Water penetration resistance (Water Ponding Test)	Meets requirements of AC308 for 60 minute Grade D water-resistive barrier Pass	ICC AC308 § 4.2.2 - 2021 (CCMC TG-072510.03 -20 § Appendix D)
Water penetration resistance	Pass	CAN/CGSB-4.2 #26.3-95 / ISO 811:1981
Water impact penetration resistance	no water passing	AATCC 42-2000
Cold bend test	Pass (no cracking)	ICC AC 38 § 3.3.4 - 2021
Flame spread index (FSI)	0	ASTM E84-13a
	NFPA Class A; UBC Class I	
Smoke developed index (SDI)	85	ASTM E84-13a
	NFPA Class A; UBC Class I	
UV exposure	No visible damage or delamination	ICC AC38 § 4.1.2 - 2021
Heat aging	Pass	CCMC 07251003-2008 § 5.1.2.4
Air permeance - material	Pass < 0.02 L/(s·m ²) @ 75 Pa <0.004 cfm/ft ² @ 1.57 psf	ASTM E2178-13 CAN/ULC-S741-R2020
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: Climate Zone 1 - 180 days Climate Zone 2 - 270 days Climate Zone 3 or above - 365 days.	
DELTA® Accessories	DELTA®-MULTI BAND 2"x 82' DELTA®-FLEX-BAND 4"x 33' DELTA®-TILAXX - 310 ml cartridge DELTA®-LFS - 300 ml cartridge	