

### 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. 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-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](http://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 <sup>2</sup> /24 h  | ASTM E96-05, Proc. A   |
|   | 820 g/m <sup>2</sup> /24 h  | ASTM E96-05, Proc. B   |
| Vapor permeance                                   | 69 perms [grains/h/ft <sup>2</sup> /in Hg]  | ASTM E96-05, Proc. A   |
|   | 120 perms [grains/h/ft <sup>2</sup> /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<br>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<br>< 0.02 l/(s x m <sup>2</sup> ) @ 75 Pa<br>< 0.004 cfm/ft <sup>2</sup> @ 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<br>2" x 82'<br>DELTA®-FLEXX-BAND<br>4" x 33'<br>DELTA®-TILAXX - 310 ml cartridge<br>DELTA®-LFS - 300 ml cartridge |  |