

Evaluation Report CCMC 13479-R DELTA®-VENT S

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2010-07-14
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1. Opinion

It is the opinion of the Canadian Construction Materials Centre (CCMC) that "DELTA[®]-VENT S," when used as a breather-type sheathing membrane in accordance with the conditions and limitations stated in Section 3 of this Report, complies with the National Building Code (NBC) of Canada 2015:

- Clause 1.2.1.1.(1)(b), Division A, as an alternative solution that achieves at least the minimum level of performance required by Division B in the areas defined by the objectives and functional statements attributed to the following applicable acceptable solutions:
 - Article 9.27.3.2., Sheathing Membrane Material Standard

This opinion is based on the CCMC evaluation of the technical evidence in Section 4 provided by the Report Holder.

Ruling No. 10-19-256 (13479-R) authorizing the use of this product in Ontario, subject to the terms and conditions contained in the Ruling, was made by the Minister of Municipal Affairs and Housing on 2010-12-30 pursuant to s.29 of the *Building Code Act*, 1992 (see Ruling for terms and conditions). This Ruling is subject to periodic revisions and updates.

2. Description

The product consists of three layers: the two outer layers, which are made of a high strength spun-bonded polypropylene fabric, are bonded to the polymeric third layer. The product is grey and 0.4 mm thick. The product is available in rolls that are 1.5 m wide and 50 m long. The material is installed over the exterior sheathing to form a continuous envelope surrounding the entire building.



Figure 1. "DELTA®-VENT S"

3. Conditions and Limitations

The CCMC compliance opinion in Section 1 is bound by the "DELTA[®]-VENT S" being used in accordance with the conditions and limitations set out below:

- The product can be used as a breather-type sheathing membrane under commonly used types of exterior cladding to reduce the risk of water infiltration. The main purpose is to create a continuous envelope around the occupied areas of residential or light commercial construction. Such continuity is achieved by overlapping or sealing the product to itself using CCMC evaluated contractor sheathing tape approved by the manufacturer, or to other construction materials using an acoustical sealant.
- A conforming installation must be:
 - installed with the printed side facing outward;
 - protected from exposure to ultraviolet (UV) radiation from the sun within 60 days;
 - installed according to Article 9.27.3.3., Required Sheathing Membrane and Installation, of Division B of the NBC 2015 and the manufacturer's current instructions;
 - installed with a minimum 10-mm air space between the sheathing membrane and the cladding, unless the cladding has been deemed to not require an air space (i.e., deemed by CCMC or by building officials based on past cladding performance); and
 - installed with the material overlapping 75 mm to 150 mm at vertical joints and 100 mm at horizontal joints. Vertical and horizontal joints are to be taped and sealed around both window and door openings.
- A concealed air space exceeding 25 mm in width must contain proper fire blocking in accordance with Subsection 9.10.16., Fire Blocks, of Division B of the NBC 2015.
- The product must be clearly identified with the phrase "CCMC 13479-R" and the name of the manufacturer or logo.

4. Technical Evidence

The Report Holder has submitted technical documentation for the CCMC evaluation. Testing was conducted at laboratories recognized by CCMC. The corresponding technical evidence for this product is summarized below.

4.1 Performance Requirements

Table 4.1.1 Results (of Testing tl	he Performance	Requirements	of the Product
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Property		Unit	Requirement	Result
Sheet width		-	Tolerance: -6 mm of specified width	Pass
Tensile strength		N/mm	> 3.5	5.44
Water vapour permeance		$ng/Pa \cdot s \cdot m^2$	> 170	3 420
Water ponding		-	No leakage	Pass ¹
Tensile strength	after UV exposure	0/ material of	> 90	99.2
	after UV and heat aging	% retention of original	> 85	105.8
Water vapour permeance of UV and heat-aged sample		ng/Pa·s·m ²	> 170	3 547
Water ponding of UV and heat-aged sample		_	No leakage	Pass ¹

Note to Table 4.1.1:

1. The water ponding test requires that the membrane retains 25.4 mm of water with no water passing through the membrane for two hours.

Report Holder

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