



Evaluation Report CCMC 13119-R Tyvek® CommercialWrap®

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1. Opinion

It is the opinion of the Canadian Construction Materials Centre (CCMC) that “Tyvek® CommercialWrap®,” 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 2015:

- Clause 1.2.1.1.(1)(b) of 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 CCMC’s evaluation of the technical evidence in Section 4 provided by the Report Holder.

Ruling No. 05-03-127 (13119-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 2005-04-05 (revised on 2017-03-24) 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 is made by flash spinning fibres of high-density polyolefin that are then consolidated and bonded into a sheet form using heat and pressure. Antioxidants and ultraviolet (UV) stabilizers are compounded into the polyolefin resin before spinning.

The product is 0.20 mm thick, white and available in rolls that are 3.05 m × 38.10 m or 1.53 m × 60.96 m.

The rolled material is applied (with the printed side out) over exterior sheathing material so that it forms a continuous envelope around the entire building.

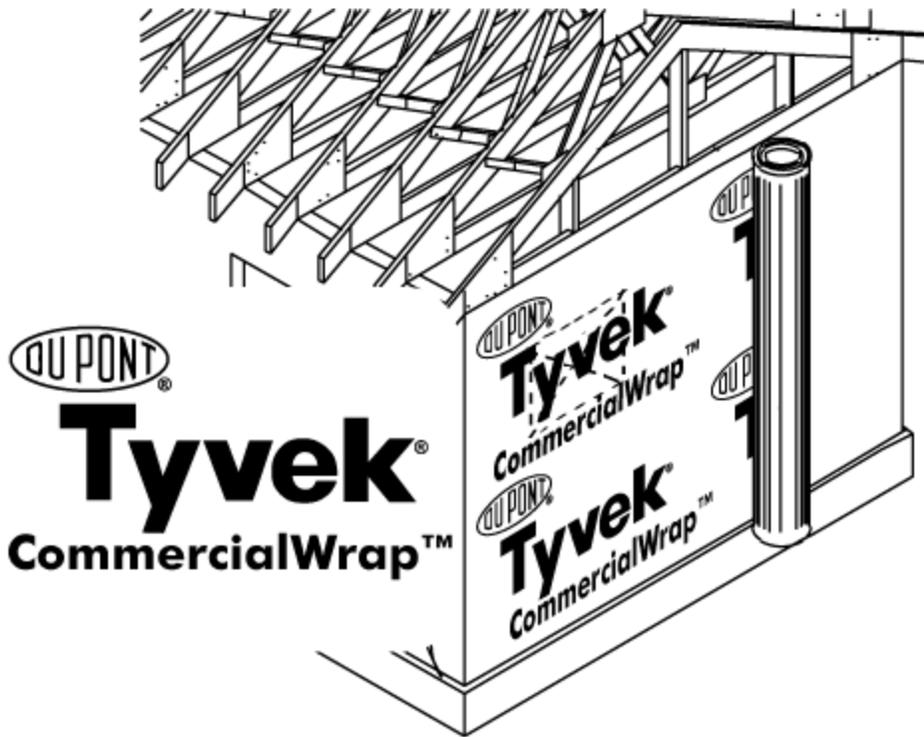


Figure 1. Installation of “Tyvek® CommercialWrap®”

3. Conditions and Limitations

CCMC’s compliance opinion in Section 1 is bound by the “Tyvek® CommercialWrap®” 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 commercial construction. Such continuity is achieved by overlapping or sealing the product either to itself using CCMC-evaluated contractor sheathing tape, 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 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. Note: Joints must be taped and the material must be 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 following information: name of the manufacturer or logo, and the phrase “CCMC 13119-R.”

4. Technical Evidence

The Report Holder has submitted technical documentation for CCMC’s 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 from Testing the Product to CCMC's Technical Guide for "Sheathing, Membrane, Breather-Type"

Property	Requirement	Result
Sheet width	Tolerance: -6 mm of specified width	Pass
Tensile strength (N/mm)	3.5	7.59
Water vapour permeance (ng/Pa·s·m ²)	≥ 170	803
Water ponding of original samples	No leakage	Pass ⁽¹⁾
Tensile strength after UV exposure (% retention of original)	≥ 90	101
Tensile strength after UV and heat aging (% retention of original)	≥ 85	92
Water vapour permeance of UV- and heat-aged sample (ng/Pa·s·m ²)	≥ 170	769
Water ponding of UV- and heat-aged samples	No leakage	Pass ⁽¹⁾

Note to Table 4.1.1:

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

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