

Evaluation Report CCMC 12808-R Tyvek[®] HomeWrap™ Breather Type Sheathing Membrane

 MASTERFORMAT:
 07 25 10.03

 Evaluation issued:
 1997-05-16

 Re-evaluated:
 2011-06-14

 Revised:
 2013-03-08

 Re-evaluation due:
 2015-05-16

1. Opinion

It is the opinion of the Canadian Construction Materials Centre (CCMC) that "Tyvek[®] HomeWrapTM Breather Type Sheathing Membrane", 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 2010:

- 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 CCMC's evaluation of the technical evidence in Section 4 provided by the Report Holder.

Ruling No. 09-37-235 (12808-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 2009-12-30 (revised on 2012-06-13) 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 a white, spun-bonded olefin material that is made by combining continuous fibres of high-density polyethylene into a sheet using a heat and pressure process.

The product is 0.15 mm thick and is available in rolls ranging in widths from 0.91 m to 2.90 m and lengths from 30.5 m to 60.9 m.

The roll material is applied over the exterior sheathing material so that it forms a continuous envelope around the entire building.

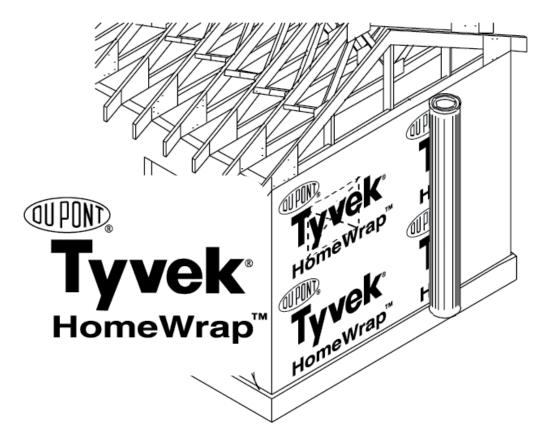


Figure 1. Installation of "Tyvek® HomeWrap™ Breather Type Sheathing Membrane"

3. Conditions and Limitations

CCMC's compliance opinion in Section 1 is bound by the "Tyvek[®] HomeWrap™ Breather Type Sheathing Membrane" 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 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 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 2010 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 sealed around both window and door openings.
- A concealed air space exceeding 25 mm in width must contain proper fire stopping in accordance with Subsection 9.10.16., Fire Blocks, of Division B of the NBC 2010.
- The product must be clearly identified with the phrase "CCMC 12808-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 "Tyvek® HomeWrap™ Breather Type Sheathing Membrane" to CCMC's Technical Guide

Tests		Requirements	Results
Sheet width		Tolerance: -6 mm of specified width	Pass
Tensile strength (N/mm)		3.5	4.83
Water vapour permeance (ng/Pa·s·m ²)		> 170	1440
Water ponding of original samples		No leakage	Pass ¹
Tensile strength	after UV exposure (% retention of original)	> 90	95
	after UV and heat aging (% retention of original)	> 85	99
Water vapour permeance of UV- and heat-aged sample (ng/Pa·s·m ²)		> 170	1798
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 2 hours.

Report Holder

E.I. du Pont Canada Company P.O. Box 2200 Streetsville Mississauga, ON L5M 2H3

Telephone: 905-816-3300 **Fax:** 905-816-3063

Plant(s)

Richmond, VA, U.S.A.

Disclaimer

This Report is issued by the Canadian Construction Materials Centre, a program of NRC Construction at the National Research Council of Canada. The Report must be read in the context of the entire CCMC Registry of Product Evaluations, including, without limitation, the introduction therein which sets out important information concerning the interpretation and use of CCMC Evaluation Reports.

Readers must confirm that the Report is current and has not been withdrawn or superseded by a later issue. Please refer to http://www.nrc-cnrc.gc.ca/eng/solutions/advisory/ccmc_index.html, or contact the Canadian Construction Materials Centre, NRC Construction, National Research Council of Canada, 1200 Montreal Road, Ottawa, Ontario, K1A 0R6. Telephone (613) 993-6189. Fax (613) 952-0268.

NRC has evaluated the material, product, system or service described herein only for those characteristics stated herein. The information and opinions in this Report are directed to those who have the appropriate degree of experience to use and apply its contents. This Report is provided without representation, warranty, or guarantee of any kind, expressed, or implied, and the National Research Council of Canada (NRC) provides no endorsement for any evaluated material, product, system or service described herein. NRC accepts no responsibility whatsoever arising in any way from any and all use and reliance on the information contained in this Report. NRC is not undertaking to render professional or other services on behalf of any person or entity nor to perform any duty owed by any person or entity to another person or entity.

Date modified: 2013-05-06