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CCMC 13119-R

CCMC

*EVALUATION
REPORT*

DIVISION 07102

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Tyvek® CommercialWrap®

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Plant: Spruance Plant
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Richmond, Virginia
U.S.A. 23234

1. Purpose of Evaluation

The proponent sought confirmation from the Canadian Construction Materials Centre (CCMC) that “Tyvek® CommercialWrap®” can serve as a breather-type sheathing membrane in compliance with the intent of the National Building Code of Canada (NBC) 1995.

2. Opinion

Subject to the limitations and conditions stated in this report, test results and assessments provided by the proponent show that “Tyvek® CommercialWrap®” complies with CCMC’s Technical Guide for “Sheathing, Membrane, Breather-Type,” Masterformat Number 07102, dated 99-06-10, and provides a level of performance equivalent to that required in:

- NBC 1995, Article 9.23.17.1.

Canada Mortgage and Housing Corporation permits the use of this product in construction financed or insured under the National Housing Act.

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3. Description

“Tyvek® CommercialWrap®” is made using a process of flash spinning fibres of high-density polyolefin, consolidating and then bonding the fibres into a sheet form using heat and pressure. Antioxidants and UV stabilizers are compounded into the polyolefin resin before spinning.

The product is 0.20 mm thick and white in colour. It comes in rolls of 3.05 m x 38.10 m and 1.53 m x 60.96 m.

Roll material is applied over exterior sheathing material so that it forms a continuous envelope around the entire building. At vertical joints, the material overlaps from 75 mm to 150 mm; at horizontal joints, 100 mm. Joints are taped and sealed around both window and door openings.

The product must be clearly identified with the following information: name of manufacturer or logo, and the phrase “CCMC No. 13119-R.”

Figure 1 illustrates the application of the product.



Figure 1. Tyvek® CommercialWrap™

4. Usage and Limitations

The “Tyvek® CommercialWrap®” can be used as breather-type sheathing membrane, to reduce the risk of water infiltration, under commonly used types of exterior cladding, brick and stucco. 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 with an acoustical sealant.

A conforming installation must be:

- installed with the printed side facing outward and must be protected from exposure to ultraviolet radiation from the sun within 60 days;
- installed according to Article 9.23.17.3. of the NBC 1995 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 (e.g., deemed by CCMC or deemed by building officials based on past cladding performance); and

- it should be noted that a concealed air space exceeding 25 mm in width must contain proper fire stopping, in accordance with Subsection 9.10.15. of the NBC 1995.

5. Performance

Testing was conducted at an independent laboratory recognized by CCMC. The results of testing “Tyvek® CommercialWrap®” are summarized in Table 1.

Table 1. Results of Testing Tyvek® CommercialWrap® to CCMC Technical Guide

Test	Requirement	Result
Sheet Width	Tolerance: - 6 mm of specified width	Pass
Tensile Strength (N/mm)	≥3.5	5.58
Water Vapour Permeance (ng/Pa·s·m ²)	WVP ≥170	1260
Water Ponding of original samples	No leakage	Pass ¹
Tensile Strength (% retention of original)		
• after UV exposure	≥90	111
• after UV and heat aging	≥85	104
Water Vapour Permeance of UV and heat aged sample (ng/Pa·s·m ²)	WVP ≥170	1199
Water Ponding of UV and heat aged samples	No leakage	Pass ¹

- ¹ The Water Ponding Test requires that the membrane retain 25.4 mm of water with no passage of water through the membrane for 2 hours.

For more information, contact:

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Readers are advised to confirm that this report has not been withdrawn or superseded by a later issue by referring to <http://irc.nrc.gc.ca/ccmc>, or by contacting the Canadian Construction Materials Centre, Institute for Research in Construction, National Research Council of Canada, Montreal Road, Ottawa, Ontario, K1A 0R6; Telephone (613) 993-6189, Fax (613) 952-0268.