



## Evaluation Report CCMC 14148-R HydroGap

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### 1. Opinion

It is the opinion of the Canadian Construction Materials Centre (CCMC) that “HydroGap,” 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) 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 the CCMC evaluation of the technical evidence in Section 4 provided by the Report Holder

### 2. Description

HydroGap is a trilaminate textured sheathing membrane with surface beads. The product consists of three (3) layers that together form a vapour-permeable air and liquid water barrier. Two of the layers are polypropylene nonwoven (one white and one tan), and the third is a breathable microporous polyolefin film. In addition, blue raised beads are bonded to the tan nonwoven layer facing the inside face of the cladding.

The trilaminate membrane is about 0.43 mm in thickness and the raised beads are a minimum of 1 mm in thickness. The product is offered in 1.524 m × 30.48 m rolls. The product is unrolled over exterior sheathing to provide a second plane of water protection for exterior wall construction.



### 3. Conditions and Limitations

The CCMC compliance opinion in Section 1 is bound by the “HydroGap” 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 of the membrane 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 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 a minimum of 150 mm at vertical joints and a minimum of 100 mm at horizontal joints. Note: Joints must be taped or overlapped and sealed around both window and door openings.
- A concealed air space exceeding 25 mm in width must contain proper fire blocks 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 14148-R.”

### 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 the Product to the CCMC Technical Guide**

| Property  |                              | Unit                      | Requirement                         | Result              |
|---|------------------------------|---------------------------|-------------------------------------|---------------------|
| Sheet width   |                              | –                         | Tolerance: –6 mm of specified width | Pass                |
| Tensile strength                                    |                              | N/mm                      | ≥ 3.5                               | 5.5                 |
| Water vapour permeance                              |                              | ng/(Pa·s·m <sup>2</sup> ) | ≥ 170                               | 570                 |
| Water vapour permeance of UV- and heat-aged samples |                              | ng/(Pa·s·m <sup>2</sup> ) | ≥ 170                               | 1 157               |
| Tensile strength                                    | after UV exposure            | % retention of original   | ≥ 90                                | 92                  |
|   | after UV and heat aging      |                           | ≥ 85                                | 89                  |
| Water ponding                                       | of original samples          | –                         | No leakage                          | Pass <sup>(1)</sup> |
|   | of UV- and heat-aged samples |                           | No leakage                          | Pass <sup>(1)</sup> |

**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 (2) hours.

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