



Evaluation Report CCMC 14145-R American Original Shake and Scallop Siding

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1. Opinion

It is the opinion of the Canadian Construction Materials Centre (CCMC) that American Original Building Products LLC's "American Original Shake and Scallop Siding," when used as an exterior siding for buildings of combustible construction 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)(a) of Division A, using the following acceptable solutions from Division B:
 - Subsection 9.27.2., Required Protection from Precipitation
 - Subsection 9.27.5., Attachment of Cladding
- 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:
 - Subsection 9.27.12., Vinyl Siding

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

2. Description

The polypropylene wall siding material and corners are made with an injection molding process. The injection molding process allows for a deep shadow catching grain on the siding panels. Panels are attached to the building structure with corrosion-resistant fasteners every 406 mm (16 in.) through the nail hem slots. These fasteners are concealed once the upper row of siding is installed. Traditional 177.8 mm (7 in.) shake siding panels have a nominal wall thickness of 2.3 mm (0.09 in.).

3. Conditions and Limitations

CCMC's compliance opinion in Section 1 is bound by "American Original Shake and Scallop Siding" being used in accordance with the conditions and limitations set out below.

- The siding panels must be installed on furring that provides a second line of defence consisting of a continuous, clear, uninterrupted air space of 19 mm outboard of the sheathing membrane.
- The furring must be installed over the sheathing membrane.
- The system requires flashing at appropriate locations in order to drain water to the outside.
- Furring for the attachment of the cladding must be securely nailed to the sheathing or framing, spaced not more than 600 mm on centre (o.c.), and be not less than 19 mm × 38 mm.
- As per the manufacturer's installation guidelines, 38-mm-diam plastic spacers must be used behind nailing slots that are not aligned with the furring.
- The product must be clearly identified with the phrase "CCMC 14145-R" on its packaging.

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 Material Requirements

4.1.1 Material Test Results

Table 4.1.1 Material Test Results

Property	Unit	Requirement	Result
Impact resistance	N·m	≥ 3.95	7.9
Weathering	--	Siding shall be free of any structural changes or visible surface changes	Pass

4.2 Performance Requirements

4.2.1 Performance Test Results

Table 4.2.1 Performance Test Results

Property	Requirement	Result	
Deformation (sustained pressure)	No damage observed after a sustained pressure for 1 hour at a maximum pressure of $\pm 1\ 000$ Pa	$Q_{50}^{(1)(2)(3)} < 1.00$ kPa	
Repeated positive and negative pressure test (cyclic pressure)	No damage observed after 2 000 cycles reversing from positive to negative pressures at a maximum of ± 1460 Pa	$Q_{50} < 1.00$ kPa	
Safety test (gust loads)	No damage observed after a maximum applied pressure of 2 180 Pa for 3 seconds	$Q_{50} < 1.00$ kPa	
Surface burning characteristics ⁽⁴⁾	flame spread	Declare	125
	smoke developed	Declare	455

Notes to Table 4.2.1:

- (1) Q_{50} represents the 1-in-50 probability of the designated wind speed being exceeded in any given year. Geographical areas and their corresponding reference wind velocity pressures are indexed in the NBC 2015.
- (2) Data in the table is generally intended for non-post-disaster low-rise buildings that have a height of 12 m or less from grade to the uppermost roof, and are located within a build-up area, no less than 120 m away from the boundary between this area and open terrain, including bodies of water upwind of the building.
- (3) Data in the table did not take into account the site-specific topographic factor C_t , where $C_t = 1.0$, except for buildings that are constructed on hills or escarpments with a slope defined in Article 4.1.7.4., Topographic Factor, of the NBC 2015. For buildings constructed on hills and escarpments, anticipated wind pressures may be greater.
- (4) Testing was conducted in accordance with CAN/ULC-S102.2, "Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies." A series of three runs was conducted for each test.

Report Holder

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