CCMC CANADIAN CODE COMPLIANCE EVALUATION

CCMC 13302-R

CCMC Canadian code compliance evaluation

CCMC number:	13302-R
Status:	Active
Issue date:	2008-03-12
Modified date:	2023-11-15
Evaluation holder:	**Oldcastle APG Permacon** 8145, rue Bombardier Ville d'Anjou QC H1J 1A5 Canada Website: suretouch.ca Telephone: 514-351-2125, extension 34321 Email: jean-philippe.beaulieu@oldcastle.com
Product name:	Suretouch
Compliance:	NBC 2015
Criteria:	CCMC-TG-074450-15, "CCMC Technical Guide for Thin Stone/Brick Exterior Finish System"

In most jurisdictions this document is sufficient evidence for approval by Canadian authorities.
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Compliance opinion

It is the opinion of the Canadian Construction Materials Centre that the evaluated product, when used as a masonry veneer cladding for buildings under the scope of Part 9 in accordance with the conditions and limitations stated in this evaluation, complies with the following code:

National Building Code of Canada 2015

Code provision	Solution type
9.20.2.7. Compressive Strength	Alternative
9.20.6.4. Masonry Veneer	Alternative
9.20.9.5. Ties for Masonry Veneer	Acceptable
9.20.12.3. Corbelling for Masonry Veneer	Acceptable
9.20.13.6. Flashing for Weep Holes in Masonry Veneer	Acceptable

The above opinion(s) is/are based on the evaluation by the CCMC of technical evidence provided by the evaluation holder, and is bound by the stated conditions and limitations. For the benefit of the user, a summary of the technical information that forms the basis of this evaluation has been included.

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Product information

Product name

Suretouch

Product description

The product is a concrete brick or stone facing veneer wall cladding system that is made using premoulded polystyrene panels and thin masonry units, which are manufactured from a mixture of Portland cement, water and suitable aggregates, with or without the inclusion of other materials. During the installation each thin masonry unit is friction-fitted into a moulded cell of the polystyrene panel. The polystyrene panels are moulded into a pattern that predetermines the location and size of the brick or stone. The polystyrene panels are fastened to the wall studs using special anchors.

The bricks or stones are 45 mm thick and after installation their joints are filled with mortar. The anchors projecting between the masonry units ensure a secure mechanical resistance of the facing veneer. These projections are completely embedded in the joints of the mortar, so the anchors bind the cladding to the studs of the wall that they cover.

Figure 1. Suretouch

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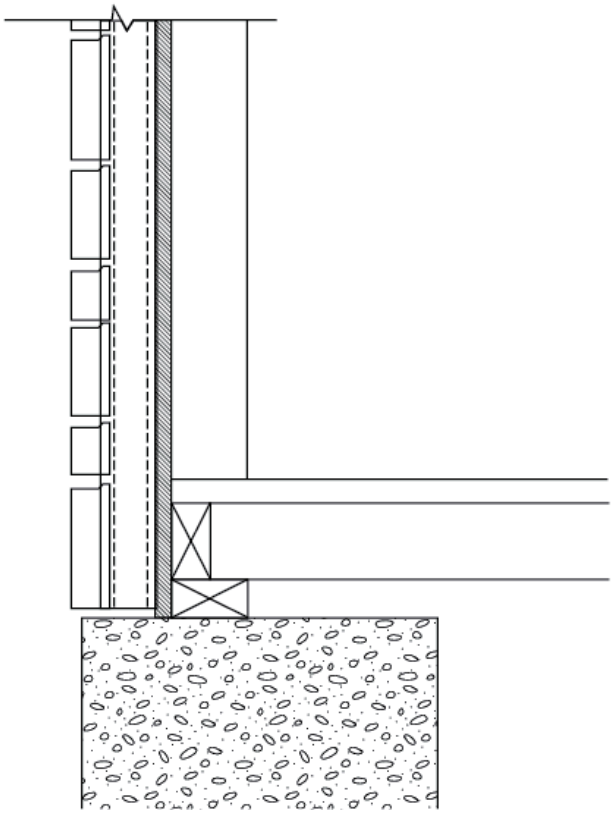

Figure 2. Suretouch wall cladding system cross-section

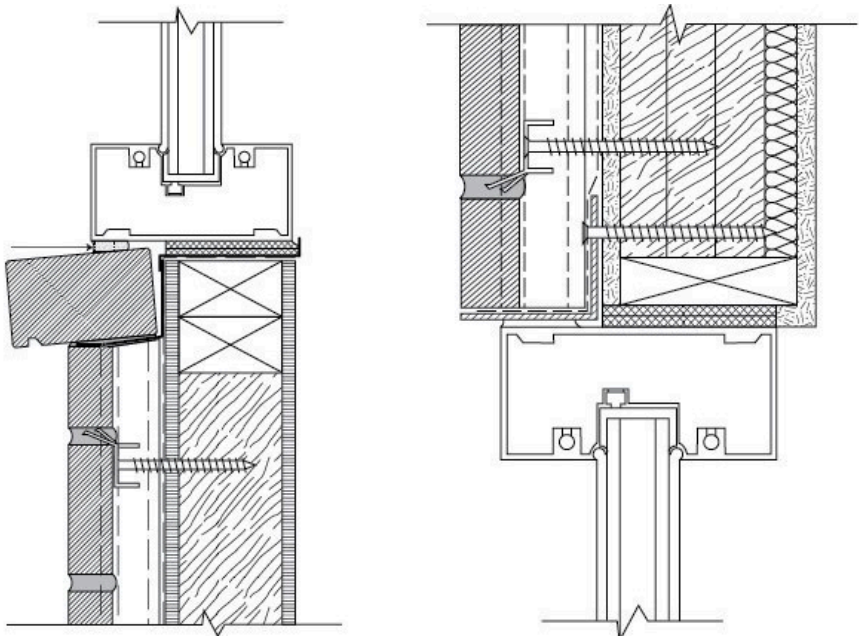

Figure 3. Suretouch windowsill cross-section and lintel cross-section

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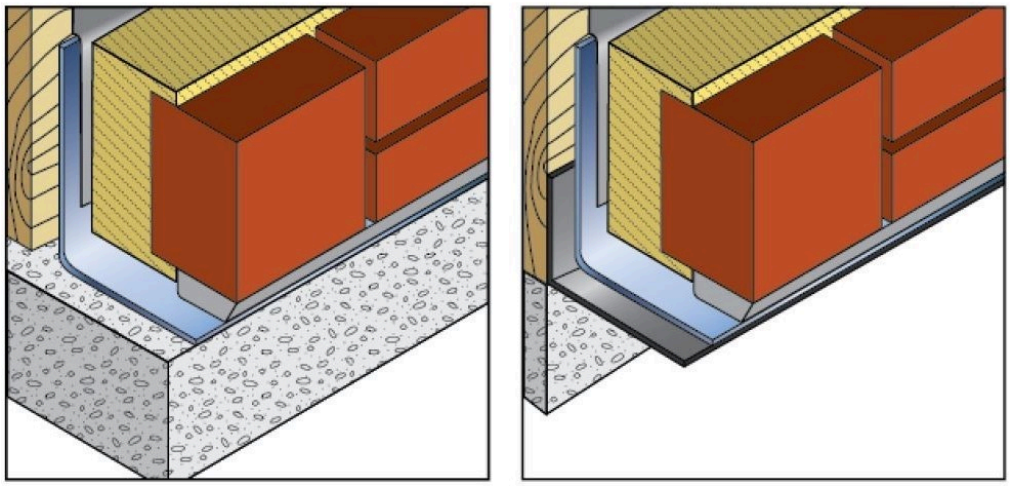

Figure 4. SureTouch support with brick ledge and SureTouch support using a steel starter strip

Manufacturing plant

This evaluation is valid only for products produced at the following plant:

Product name	Manufacturing plant
	Ville d'Anjou, QC, CA
Suretouch	⊘

⊘ Indicates that the product from this manufacturing facility has been evaluated by the CCMC

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Conditions and limitations

The CCMC's compliance opinion is bound by this product being used in accordance with the conditions and limitations set out below.

- The product may be used as cladding for wood-frame housing conforming to Part 9 of Division B of the NBC 2015.
- The product may be used on one- and two-storey wood-frame housing using Table 9.23.10.1., Size and Spacing of Studs, of Division B of the NBC 2015 for stud size and spacing. Studs must be spruce-pine-fir (S-P-F) grade No. 2 or better.
- Connectors used with the product must have a corrosion protection coating or be made of stainless steel.
- The steel flashing and counterflashing units holding the windowsill must comply with Section 3.1 of CSA S136-07, "North American Specification for the Design of Cold-Formed Steel Structural Members," and have a minimum protection coating of 275 g/m^2 (G90) or better.
- The wall sheathing membrane must conform to Article 9.27.3.2., Sheathing Membrane Material Standard, of Division B of the NBC 2015 and must be installed on the wall sheathing prior to installing the polystyrene panels.
- An elastomeric membrane or metallic flashing must be used for flashing above window and door openings in accordance with Article 9.20.13.1.
- The wall sheathing membrane must overlap the elastomeric membrane by at least 100 mm.
- Maximum wind load must be limited to ≤ 1 kPa.
- No earthquake resistance study has been provided at this time.
- For seismic areas, a professional engineer must be consulted for compliance with Part 4, Structural Design, of Division B of the NBC 2015.
- This product must be identified with the phrase "CCMC 13302-R."
- Installation must follow the manufacturer's current instructions. Detailed instructions for the installation of the masonry veneer must be in accordance with the installation manual dated May 2013.

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Technical information

This evaluation is based on demonstrated conformance with the following criteria:

Criteria number	Criteria name
CCMC-TG-074450-15	CCMC Technical Guide for Thin Stone/Brick Exterior Finish System

The evaluation 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.

General requirements

Masonry brick properties

Table 1. Results of testing the masonry brick properties

Property	Unit	Requirement	Result
Dimensions overall, variations	mm	If dimensions are different than those specified in CSA A165-94, report all dimensions of the stone/brick unit. Check standard for permissible variations.	Report results
Compressive strength (1)	MPa	≥ 25	Pass
Maximum saturation coefficient	–	Average 0.78	Pass
Maximum saturation coefficient	–	Individual 0.80	Pass
Oven dry mass density	kg/m^3	Over 2 000	Pass
Water absorption (per unit weight)	%	Maximum 8	Pass
Linear shrinkage	%	≤ 0.45	Pass
Moisture content	%	≤ 45% of total absorption	Pass

	Note
1	The blocks must first be immersed in room temperature water (21 ± 5°C) for 24 h.

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Wall component properties

Table 2. Results of testing the wall component properties

Property	Requirement	Result
Polystyrene	Certified to ULC S701	Pass
Mortar and grout (1)	Complies with CSA A179-94	Pass
Ties (2)	Complies with Article 9.20.9.5.	Pass

Notes

1 For exteriors, above-grade Type N or S mortar must be used.

2 Ties are used to attach the masonry unit to its backing. Masonry unit connectors must have Level II corrosion protection.

Performance requirements

Wall cladding structural stability

Table 3. Result of testing the structural stability of the wall cladding

Property	Requirement	Result
Structural stability (1)	Wall to show no damage	Pass

Note

1 In addition to adhering to the specifications listed in Section 8 of ASTM C1201/C1201M-15, “Standard Test Method for Structural Performance of Exterior Dimension Stone Cladding Systems by Uniform Static Air Pressure Difference,” each test specimen must incorporate one vertical and one horizontal joint in the polystyrene backing. One specimen must be tested within 30-60 days of being constructed and maintained under controlled laboratory conditions. At least one other specimen must be tested that has been aged outdoors or under simulated outdoor conditions for a period of at least one year and then conditioned under a normal laboratory environment for an additional 30 days. (Note: this aged specimen test is intended to determine whether the masonry units could become loose, and as a result, pop out under suction due to shrinkage of the mortar or other effects that may bring about these conditions. The specimen is to be placed in an exposed location and subjected to the local climate elements, preferably in the prevailing wind-driven rain direction.)

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Wall resistance to water penetration

Table 4. Result of testing the wall resistance properties

Property	Requirement	Result
Water penetration and drainage	No water penetration	Pass

Wall cladding resistance to wind loading

Table 5. Result of testing the wall cladding resistance to wind loading

Property	Unit	Requirement	Result
Exterior cladding	kPa	Table C-2, Hourly Wind Pressure, of Appendix C of Division B of the NBC 2015 (wind load effects)	2.1 kPa

Administrative information

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This assessment must be read in the context of the entire CCMC Registry of Product Assessments, any applicable building code or by-law requirements, and/or any other regulatory requirements (for example, the Canada Consumer Product Safety Act, the Canadian Environmental Protection Act, etc.).

It is the responsibility of the user to confirm that the assessment they are using is current and has not been withdrawn or superseded by a later version on the CCMC Registry of Product Assessments.

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Language

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CCMC assessments are recognized by construction authorities across Canada:

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First Nations National Building Officers Association (FNNBOA)	(First Nations National Building Officers Association (FNNBOA))
Canadian Home Builders' Association (CHBA)	(Canadian Home Builders' Association (CHBA))
Alberta Building Officials Association (ABOA)	(Alberta Building Officials Associations (ABOA))
Saskatchewan Building Officials Association (SBOA)	(Saskatchewan Building Officials Association (SBOA))
Manitoba Building Officials Association (MBOA)	(Manitoba Building Officials Association (MBOA))
Ontario Building Officials Association (OBOA)	(Ontario Building Officials Association (OBOA))
New Brunswick Building Officials Association (NBBOA)	(New Brunswick Building Officials Association (NBBOA))
Nova Scotia Building Officials Association (NSBOA)	(Nova Scotia Building Officials Association (NSBOA))

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For more information, contact the CCMC by phone at (613) 993-6189 or by email at ccmc@nrc-cnrc.gc.ca

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Code compliance as an acceptable solution

Code Compliance via Acceptable Solutions

> If a building design (e.g. material, component, assembly or system) can be shown to meet all provisions of the applicable **acceptable solutions** in Division B (e.g. it complies with the applicable provisions of a referenced standard), it is deemed to have satisfied the objectives and functional statements linked to those provisions and thus to have complied with that part of the Code.
>
> — **National Building Code of Canada, Sentence A-1.2.1.1.(1)(a)**

The CCMC has determined that compliance with this provision of the Code has been demonstrated as an **Acceptable Solution**. The evaluation report provides a summary of the basis of CCMC's compliance opinion.

CCMC's code compliance opinions

All CCMC evaluation reports are opinions of code compliance established in accordance with the National Building Code of Canada, Subsection 1.2.1. "Compliance with this Code," which requires compliance to be achieved by:

- complying with the applicable acceptable solutions in Division B, or
- using an alternative solution that will achieve at least the minimum level of performance required by Division B in the areas defined by the objective and functional statements attributed to the applicable acceptable solutions.

The CCMC assesses compliance with Canadian building, energy and safety codes, and is trusted by over 6,000 regulators across Canada.

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Code compliance as an alternative solution

Code Compliance via Alternative Solutions

> Where a design differs from the acceptable solutions in Division B, then it should be treated as an "**alternative solution**." A proponent of an alternative solution must demonstrate that the alternative solution addresses the same issues as the applicable acceptable solutions in Division B and their attributed objectives and functional statements. However, because the objectives and functional statements are entirely qualitative, demonstrating compliance with them in isolation is not possible. Therefore, Clause 1.2.1.1.(1)(b) identifies the principle that Division B establishes the quantitative performance targets that alternative solutions must meet. In many cases, these targets are not defined very precisely by the acceptable solutions [...] Nevertheless, Clause 1.2.1.1.(1)(b) makes it clear that an effort must be made to demonstrate that an alternative solution will perform as well as a design that would satisfy the applicable acceptable solutions in Division B—not “well enough” but “as well as.”
>
> — **National Building Code of Canada, Sentence A-1.2.1.1.(1)(b)**

The CCMC has determined that compliance with this provision of the Code has been demonstrated as an **Alternative Solution**. The evaluation report provides a summary of the basis of CCMC's compliance opinion.

CCMC's code compliance opinions

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