

# CCMC 14043-R

## CCMC Canadian code compliance evaluation

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| <b>CCMC number:</b>       | 14043-R  |
| <b>Status:</b>            | Active   |
| <b>Issue date:</b>        | 2016-09-20   |
| <b>Modified date:</b>     | 2023-11-08   |
| <b>Evaluation holder:</b> | <p><b>Sagiper North America</b><br/>                     13179 156 Street NW<br/>                     Edmonton AB T5V 1V2<br/>                     Canada<br/>                     Website: <a href="http://www.sagipernorthamerica.com">www.sagipernorthamerica.com</a><br/>                     Telephone: 780-238-1667<br/>                     Email: <a href="mailto:info@sagipernorthamerica.com">info@sagipernorthamerica.com</a></p> |
| <b>Product name:</b>      | Sagiwall   |
| <b>Compliance:</b>        | NBC 2015   |
| <b>Criteria:</b>          | CCMC-TG-074633.07-15, "CCMC Technical Guide for Heavy Gage PVC Siding"   |

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

[Learn more about CCMC recognition](#) [Look for the trusted CCMC mark on products to verify compliance.](#)

## Compliance opinion

It is the opinion of the Canadian Construction Materials Centre that the evaluated product, when used as an exterior cladding for buildings of combustible construction 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      |
|--|--------------------|
| 9.27.2. Required Protection from Precipitation | <u>Acceptable</u>  |
| 9.27.3. Second Plane of Protection             | <u>Acceptable</u>  |
| 9.27.12. Vinyl Siding                          | <u>Alternative</u> |

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.

## Product information

### Product name

Sagiwall

### Product description

The products are made of heavy-gauge polyvinyl chloride (PVC) and coated with a PVC film (RENOLIT) designed for exterior applications.

The profiles are tongue and groove and fastened to the building structure through pre-punched nailing slots located along the top edge of the profiles, which are concealed after the upper profile is installed. The products are available in a 150-mm channeled groove profile and a 150-mm V-groove profile. The products are 3 660 mm or 5 790 mm in length.

All accessories are made of aluminum covered with a PVC film (RENOLIT).



Figure 1. Sagiwall Channeled Profile



Figure 2. Sagiwall V-Groove Profile

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## Manufacturing plant

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

| Product name | Manufacturing plant |
|--------------|---------------------|
|              | Vagos, Portugal     |
| Sagiwall     | ☑                   |

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

## 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 products are limited to use as exterior siding for the buildings falling within the scope of Part 9, Housing and Small Buildings, of Division B of the NBC 2015.
- When installed, all the building elements relevant to the product must comply with the requirements of the NBC 2015.
- The siding panels must be installed on furring providing a second plane of protection that consists of a continuous, clear, uninterrupted vented air space of 10 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 not be less than 19 mm × 38 mm, securely nailed to the sheathing or framing, and spaced not more than 600 mm on centre (o.c.).
- The products shall be installed in accordance with the manufacturer's current installation instructions:
  - "Sagiwall Installation Guidelines" November 1, 2020, Version 1.1
- If there is any discrepancy between the Conditions and Limitation of this Evaluation Report and the proponent's installation instructions, the Conditions and Limitations of the Report supersede.
- The product must be clearly identified with the phrase "CCMC 14043-R" on its packaging.

# Technical information

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

| Criteria number      | Criteria name                                  |
|----------------------|--|
| CCMC-TG-074633.07-15 | CCMC Technical Guide for Heavy Gage PVC Siding |

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:

**Table 1. Results of Testing the Physical Properties of the Product**

| Property               | Unit             | Requirement   | Result               |
|------------------------|------------------|---|----------------------|
| Thermal expansion      | °C <sup>-1</sup> | $\leq 8.1 \times 10^{-5}$   | $4.8 \times 10^{-5}$ |
| Flammability           | –                | Compound shall not exceed an average extent of burning of 25 mm, and the average time of burn shall not exceed 10 s | Pass                 |
| Shrinkage              | %                | $\leq 3$  | 0.2                  |
| Warp                   | mm               | $\leq 3$  | 1                    |
| Impact resistance      | J                | $\geq 6.3$ J at 23°C  | 8.2                  |
| Surface distortion     | –                | Free from bulges, waves or ripples  | Pass                 |
| Weatherability         | –                | No peeling, flaking, chipping or pitting  | Pass                 |
| Thickness – Face       | mm               | $\geq 0.7$  | 17                   |
| Thickness – Nail slots | mm               | $\geq 0.9$  | 1.9                  |

**Table 2. Results of Testing the Wind Load Resistance of the Product at  $Q_{1/50} < 0.75$  kPa <sup>(1)</sup> <sup>(2)</sup>**

| Property   | Requirement   | Result |
|--|---|--------|
| Deformation (sustained pressure)   | No fracture or permanent deformation after sustained pressure of 750 Pa for 1 h | Pass   |
| Repeated positive and negative pressure test (cyclic pressure), 2 000 cycles | No fracture or permanent deformation after the cyclic pressure 1 090 Pa         | Pass   |
| Safety test (gust loads)   | Resist wind gusts to 1 630 Pa   | Pass   |

## Notes

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- 1 The wind load resistance test was performed on a back-up wall consisting of 38 mm × 89 mm (2 in. x 4 in.) wood studs and 6.35 mm oriented strandboard (OSB) sheathing. The spacing between each stud section was 406 mm o.c.. Along the studs, wood furring strips in dimensions of 25 mm × 38 mm were installed. Each siding panel was installed by #10 × 2 in. flat socket head screws on furring strips.
  - 2 The performance level shown in the table is for installations limited to non-post-disaster buildings.
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**Table 3. Results of Testing to CAN/ULC-S134, Fire Test of Exterior Wall Assemblies of the Product**

| Property  | Requirement   | Result |
|-----------|---|--------|
| Flaming   | Flaming on or in the wall assembly does not spread more than 5 m above the opening.   | Pass   |
| Heat flux | Heat flux during the flame exposure on the wall assembly is not more than 35 kW/m <sup>2</sup> measured at 3.5 m above the opening. | Pass   |

## Administrative information

### Use of Canadian Construction Materials Centre (CCMC) assessments

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](#).

### Disclaimer

The National Research Council of Canada (NRC) has evaluated only the characteristics of the specific product described herein. The information and opinions in this evaluation are directed to those who have the appropriate degree of experience to use and apply its contents (such as authorities having jurisdiction, design professionals and specifiers). This evaluation is valid when the product is used as part of permitted construction, respecting all conditions and limitations stated in the evaluation, and in accordance with applicable building codes and by-laws.

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### Language

Une version française de ce document est disponible.

In the case of any discrepancy between the English and French version of this document, the English version shall prevail.

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## CCMC recognition

The Canadian Construction Materials Centre (CCMC) assesses compliance with Canadian building, energy and safety codes. We are the only construction code compliance service supported and operated by the Government of Canada. Trusted by over 6,000 regulators across Canada.

Most Canadian authorities having jurisdiction (AHJs) consider CCMC product assessments acceptable as evidence for product approval.

### CCMC assessments are recognized by construction authorities across Canada:

Alliance of Canadian Building Official Associations (ACBOA)



(Alliance of Canadian Building Official Associations (ACBOA))

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)



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Ontario Building Officials Association (OBOA)



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New Brunswick Building Officials Association (NBBOA)



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(Nova Scotia Building Officials Association (NSBOA))

The CCMC provides code compliance assessments to Canadian code requirements, consulting nationwide with construction regulators to elicit regional variations in code requirements as well as provincial and local interpretations. Users are advised to review the technical information presented in CCMC assessments when making approval decisions. [Learn more about how the CCMC provides a unique service for Canada.](#)

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

## NOTICE

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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.

# 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

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:

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