

CCMC 14201-R

CCMC Canadian code compliance evaluation

CCMC number:	14201-R
Status:	Active
Issue date:	2021-10-28
Modified date:	2021-11-17
Evaluation holder:	Masterplast Inc.
Product name:	MASTERMAX PREMIUM 100
Code compliance:	NBC 2015
Evaluation requirements:	CCMC-TGC 2510.03-15 "CCMC Technical Guide for Sheathing Membrane, Breather Type"

For the latest version of this evaluation consult the CCMC Registry of Product Assessments

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

[Learn more about CCMC recognition](#)

Code compliance opinion

It is the opinion of the Canadian Construction Materials Centre that the evaluated product, when used as a breather-type sheathing membrane 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
9.27.3.2. Sheathing Membrane Material Standard	Alternative

The above opinion is 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

MASTERMAX PREMIUM 100

Product description

MASTERMAX PREMIUM 100 is a triple-layer, breathable underlayment consisting of a microporous film between two layers of non-woven polypropylene. It serves as a water-resistant, vapour-permeable membrane in cladding systems.

The product is black on the topside and white on the underside. It is 0.53 mm thick and is available in rolls that are 1.5 m wide × 50 m long, 2.74 m wide × 30.48 m long, and 0.92 m wide × 30.48 m long.

The rolled material is applied over exterior sheathing material so that it forms a continuous envelope around the entire building.

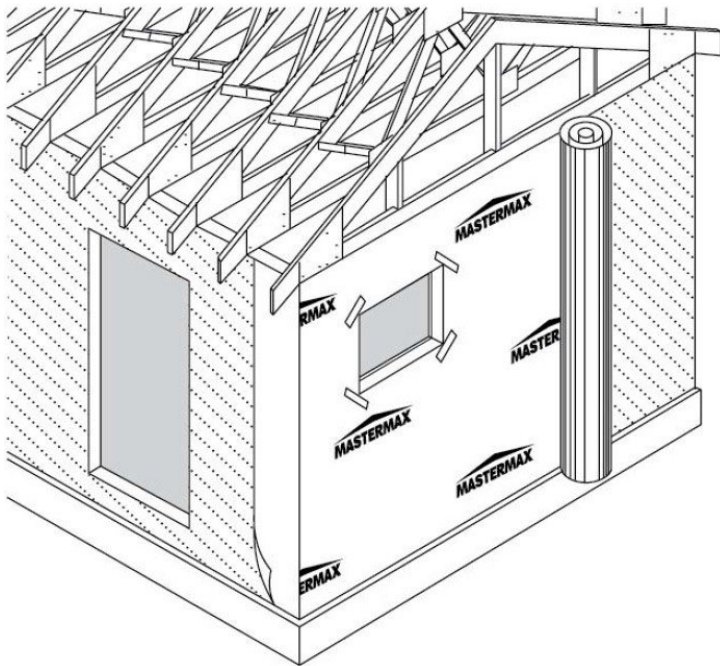


Figure 1. Installation of MASTERMAX PREMIUM 100

Manufacturing plants

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

- Aschersleben, Germany

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 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 is to create a continuous envelope around the occupied areas of residential or light commercial construction. Such continuity is achieved by overlapping the membrane per Article 9.27.3.3., Required Sheathing Membrane and Installation, of Division B of NBC 2015 (joints must be lapped not less than 100 mm) or sealing the product either to itself (using CCMC-evaluated contractor sheathing tape) or to other construction materials (using an acoustical sealant). Where a CCMC-evaluated tape is required to provide continuity, its adhesion over MASTERMAX PREMIUM 100 must be validated. The membrane continuity at penetrations is beyond the scope of this evaluation and must be achieved according to the manufacturer's instructions.
- 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 the CCMC or by building officials based on past cladding performance); and
 - installed with the material overlapping 300 mm at vertical joints and 150 mm at horizontal joints. Note: joints must be taped and the material must be 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 14201-R."

Technical information

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

Criteria number	Criteria name
CCMC-TG-072510.03-15	CCMC Technical Guide for Sheathing Membrane, Breather Type

The Report Holder has submitted technical documentation for the CCMC's evaluation. Testing was conducted at laboratories recognized by the CCMC. The corresponding technical evidence for this product is summarized below.

Performance requirements

Results of testing MASTERMAX PREMIUM 100 to the CCMC Technical Guide

Property	Unit	Requirements	Results
Sheet width	–	Tolerance: –6 mm of specified width	Pass
Tensile strength	N/mm	≥ 3.5	4.69
Water vapour permeance	ng/(Pa·s·m ²)	≥ 170	3 256
Water vapour permeance of UV- and heat-aged samples	ng/(Pa·s·m ²)	≥ 170	2 816
Tensile strength after UV exposure	% retention of original	≥ 90	97
Tensile strength after UV exposure and heat aging	% retention of original	≥ 85	99
Water ponding of original samples	–	No leakage	Pass ⁽¹⁾
Water ponding of UV- and heat-aged samples	–	No leakage	Pass ⁽¹⁾

Note:

- ¹ The water ponding tests require that the membrane retain 25.4 mm of water with no water passing through the membrane for two hours.

Administrative information

Disclaimer

This evaluation is issued by the Canadian Construction Materials Centre (CCMC), a part of the Construction Research Centre at the National Research Council of Canada (NRC). The evaluation must be read in the context of the entire [CCMC Registry of Product Assessments](#) and the legislated applicable building code in effect.

The CCMC was established in 1988 on behalf of the applicable regulator (i.e., the provinces and territories) to ensure—through assessment—conformity of alternative and acceptable solutions to regional building codes as determined by the local authority having jurisdiction (AHJ) as part of the issuance of a building permit.

It is the responsibility of the local AHJs, design professionals, and specifiers to confirm that the evaluation is current and has not been withdrawn or superseded by a later issue. Please refer to [the website](#) or contact:

Canadian Construction Materials Centre

Construction Research Centre
National Research Council of Canada
1200 Montreal Road
Ottawa, Ontario, K1A 0R6
Telephone: 613-993-6189
Fax: 613-952-0268

The NRC has evaluated the material, product, system or service described herein only for those characteristics stated 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 (i.e., AHJs, design professionals and specifiers). This evaluation is only valid when the product is installed in strict compliance with the stated conditions and limitations of evaluation and the applicable local building code. In circumstances where no applicable local building permit is issued and that no confirmation of compliance 'for use in the intended field application' is undertaken, this evaluation is null and void in all respects. This evaluation is provided without representation, warranty, or guarantee of any kind, expressed, or implied, and the NRC provides no endorsement for any evaluated material, product, system or service described herein. The NRC accepts no responsibility whatsoever arising in any way from any and all use and reliance on the information contained in this evaluation with respect to its compliance to the referenced code(s) and standard(s). The NRC is not undertaking to render professional or other services on behalf of any person or entity nor to perform any duty owed by any person or entity to another person or entity.

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)



(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))

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

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.

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