

CCMC 12266-R

CCMC Canadian code compliance evaluation

CCMC number:	12266-R
Status:	Active
Issue date:	1991-07-26
Modified date:	2022-11-17
Evaluation holder:	<p>Armtec Inc. 33 Centennial Road Orangeville ON L9W 1R1 Canada Website: armtec.com Telephone: 1-800-565-1152</p>
Product name:	Platon® Foundation Wrap
Code compliance:	NBC 2015
Evaluation requirements:	CCMC-TG-071119.01-15 "CCMC Technical Guide for Foundation Wall Dampproofing Systems – Dimpled Membranes"

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.](#)

Code compliance opinion

It is the opinion of the Canadian Construction Materials Centre that the evaluated product, when used as a material for dampproofing 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
9.13.2. Dampproofing	<u>Alternative</u>

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

Platon
Foundation Wrap

Product description

The product is a carbon-compounded, high-density polyethylene membrane with a dimpled surface on one side to provide an air gap between the concrete wall and the adjacent soil.

The product features double cone dimples, which are 6 mm high, spaced at about 30 mm on centre (o.c.) and joined by channels. The product is available in rolls that are 0.6 mm thick, 20 m long, and up to 3.05 m wide.

To ensure correct application, the manufacturer offers a complete dampproofing system with compatible and durable fasteners, sealants and accessories where needed. The configuration of the system is shown in [Figure 1](#), [Figure 2](#), [Figure 3](#) and [Figure 4](#).

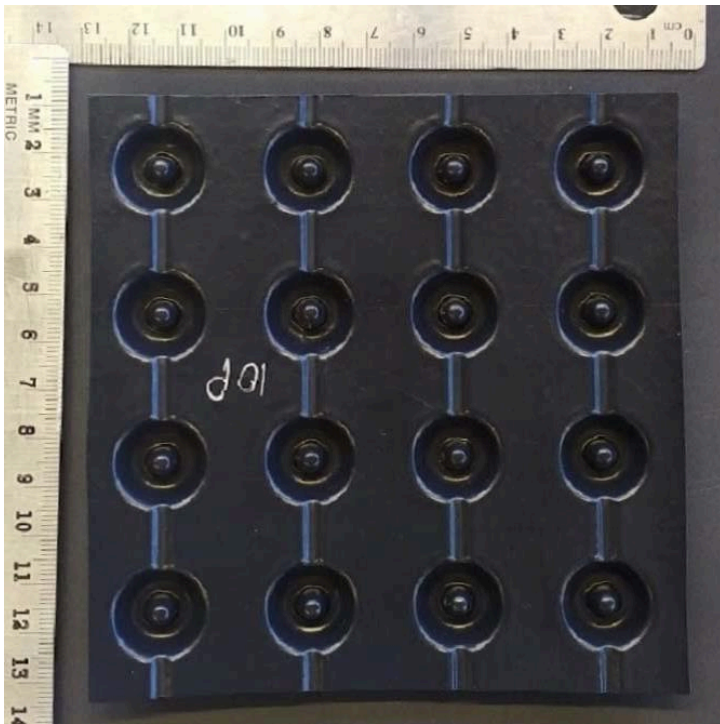


Figure 1. Side facing the soil

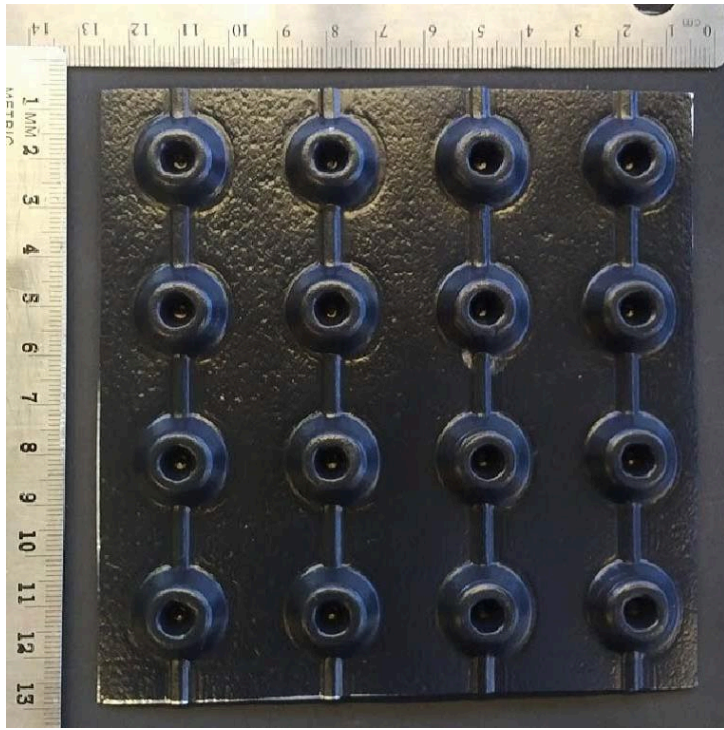


Figure 2. Side facing the wall



Figure 3. Anchor 1

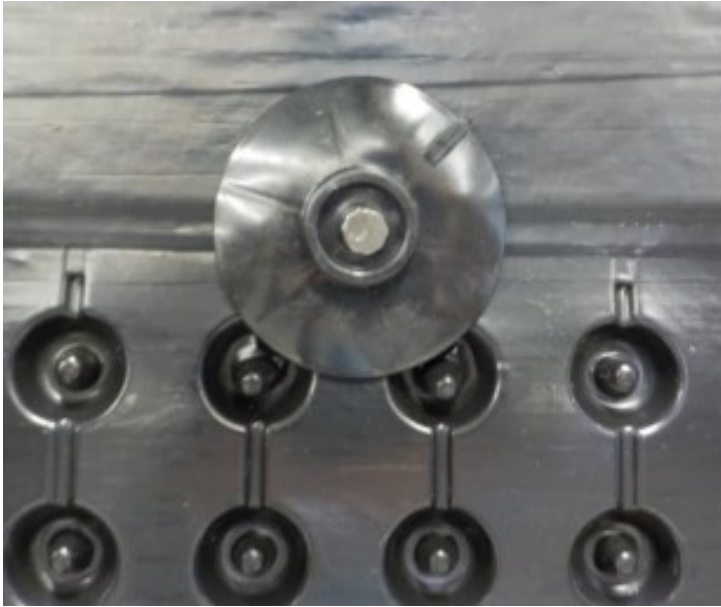


Figure 4. Anchor 2

Manufacturing plant

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

Product name	Manufacturing plant
	Orangeville, ON, CA
Platon® Foundation Wrap	☑

☑ 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.

- Based on the evidence provided, the product has been classified as Type 2 for use in vertical applications in depths up to 3.7 m below grade. Application depths greater than 3.7 m are considered to be outside the scope of this evaluation.
- The product must be installed in accordance with the manufacturer's instructions. In the event of conflict between the manufacturer's instructions and this evaluation, this evaluation shall govern.
- The product was evaluated for use against cast-in-place and concrete block foundations only and must cover the foundation wall from the top of the footing to the final grade.
- The product must be used in locations where the foundation wall is well-drained in accordance with Subsection 9.14.2., Foundation Drainage, of Division B of the NBC 2015.
- The product is a dimpled membrane dampproofing system designed to act as a protective layer or a capillary breaking layer against the foundation wall to protect the wall against transient or intermittent water that may come in contact with the wall's surface.
- The product must be protected from exposure to ultraviolet (UV) light (sunlight) within a maximum of six months of installation.
- Long-term performance of the dampproofing system depends on local conditions such as the soil type, hydrogeology of the site, mineralogy and presence of microorganisms in the soil (i.e., iron ochre), as well as compatibility of the filter with the soil, among other issues. Compliance with this evaluation does not exempt the project from requiring proper engineering design of the drainage system.
- The performance of fixtures used to anchor the product in the wall was evaluated for a single anchor. It is the responsibility of the manufacturer to define the pattern and spacing of anchors, considering the anchor strength as well as site-specific issues such as the type of soil, how it will interact with the product, as well as the backfilling method used.
- The top of the membrane and all vertical joints and terminations must be mechanically fastened and sealed to prevent soil particles from entering behind the membrane. Accessories used to anchor the product are part of the evaluation.
- The product's label and/or packaging must be clearly identified with the following:
 - manufacturer's name or logo; and
 - the phrase "CCMC 12266-R."

Technical information

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

Criteria number	Criteria name
CCMC-TG-071119.01-15	CCMC Technical Guide for Foundation Wall Dampproofing Systems – Dimpled Membranes

The evaluation 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.

The Platon Dampproofing Membrane test results are summarized in the table below.

Table 1. Test results for Platon Damproofing Membrane

Property	Unit	Requirement	Result
Compressive strength (initial)	kPa	150	176.5
Dynamic impact resistance (mean failure energy)	J	≥ 2.45	2.6
Creep resistance (residual thickness at 25 years / 10°C)	%	≥ 40% at 25 years / 10°C	64.8
Cold bending at -30°C	N/A	No visible crack	No visible crack
UV Resistance (residual compression strength)	%	≥ 80% of original	116 ⁽¹⁾
Tensile strength at yield	kN/m	≥ 8	XD ⁽²⁾ 10.1
Tensile strength elongation at break	%	≥ 25	XD 26.3
Tensile strength anisotropy ratio	N/A	≥ 0.5	0.67
Heat aging for 2 weeks (OIT after 2 weeks)	min	Note 3	5.95 ⁽³⁾
Heat aging for 2 weeks (weight change)	%	≤ -0.1	-0.2 ⁽⁴⁾
Heat aging for 2 weeks (residual compression strength)	%	≥ 80 % of initial	127
Heat aging for 2 weeks (creep resistance after heat aging)	%	≥ 40 % at 25 years/10°C	62.6
Resistance to alkaline environment appearance	N/A	No visible crack	No visible crack
Resistance to alkaline environment residual compression strength	%	≥ 80 of initial	118
Resistance to alkaline environment cold bending at -30°C	N/A	No cracks at room temp.	No visible crack
Orientation of the dimples	-	Report value	Square MD/CD
Number of dimples per unit area	dimples/m ²	Report value	884
Overall thickness	mm	Report value	6.18
Sheet thickness	mm	Report value	0.86
Hollow core thickness	mm	Report value	5.32
Anchorage performance anchorage efficiency - Anchor 1	kN/anchor	Report value	1.03
Anchorage performance anchorage efficiency - Anchor 2	kN/anchor	Report value	0.36

Notes

- ¹ Test to permit exposure of product up to 6 months before backfilling.
- ² "MD" refers to the machine direction of the product; "XD" refers to cross direction of the product.
- ³ When Oxidation Induction Time (OIT) after 2 weeks aging > 5 min, the heat aging duration can be reduced to 2 weeks instead of 8 weeks.

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- 4 If the weight change is greater than $\pm 0.1\%$, an additional creep resistance test must be conducted and the residual thickness must be greater than 40% at 25 years / 10°C.
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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

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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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This PDF is an alternative version. This document was published on 2022-11-18 and may not be the latest version of this evaluation. Users should consult the latest [published assessment](#) on the [CCMC Registry of Product Assessments](#), which contains the most up to date information. This PDF is intended for use as a record, not the latest information available.

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))

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(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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