



Evaluation Report CCMC 12266-R Platon Dampproofing Membrane

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1. Opinion

It is the opinion of the Canadian Construction Materials Centre (CCMC) that “Platon Dampproofing Membrane”, when used as a material for dampproofing in accordance with the conditions and limitations stated in Section 3 of this Report, complies with the National Building Code 2010:

- Clause 1.2.1.1.(1)(b), 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:
 - Sentence 9.13.2.2.(1), Material Standards (Dampproofing)

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

2. Description

The product is a carbon-compounded, high-density polyethylene 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 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.

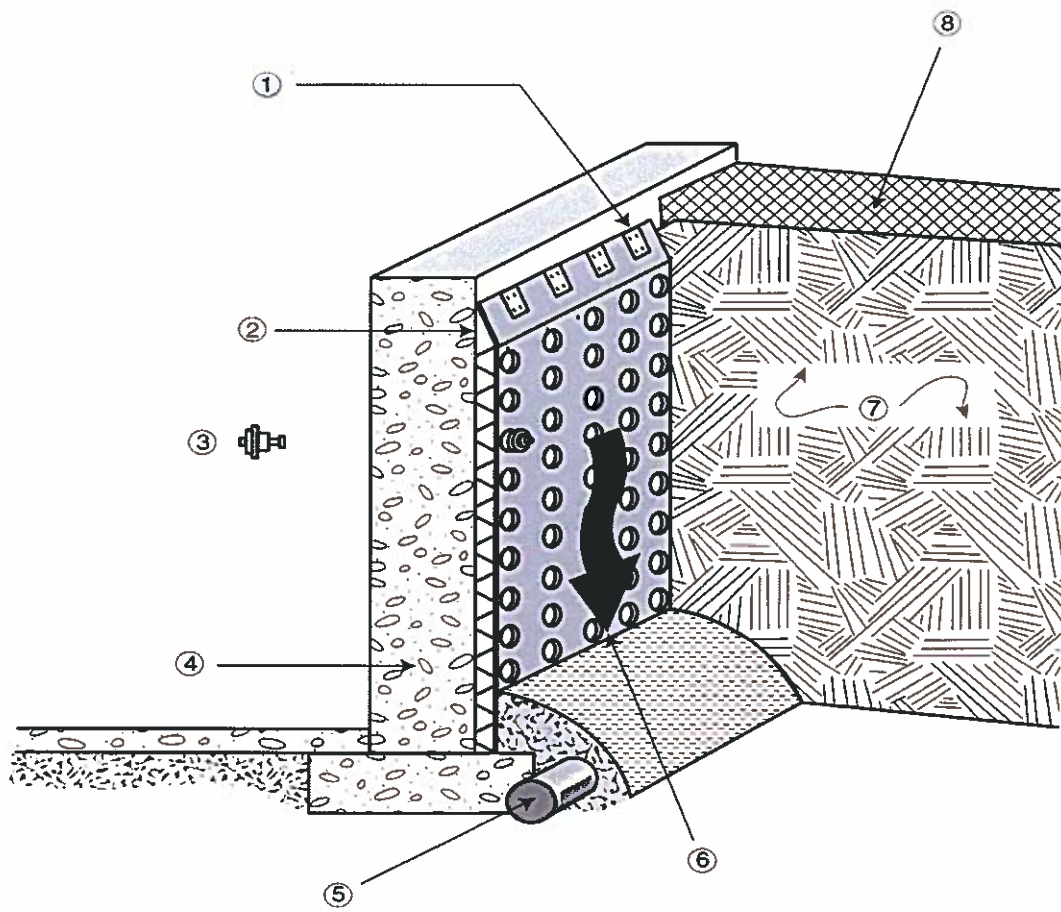


Figure 1. Installation details for the “Platon Dampproofing Membrane”

1. speedclip (with associated spacing)
2. continuous bead of caulking
3. system “Platon” plugs
4. concrete foundation
5. foundation drainage tile
6. water flow to tile
7. backfill
8. finished grade

3. Conditions and Limitations

CCMC's compliance opinion in Section 1 is bound by the “Platon Dampproofing Membrane” being used in accordance with the conditions and limitations set out below.

1. The product was evaluated for use against cast-in-place and concrete block foundations only.
2. 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 2010.
3. The product must be installed in accordance with the manufacturer's instructions and be protected from exposure to ultraviolet radiation from the sun within 30 days.
4. The product is evaluated for use 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 Report.
5. The product must cover the foundation wall from the top of the footing to the final grade.
6. 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.
7. As the dampproofing membrane does not have to adhere to the surface and can permanently bridge any normal joint, tie hole, fault or shrinkage crack, the wall surface does not have to be parged, cleaned, patched or sealed before hanging the membrane.
8. The product has been evaluated for use as a foundation wall drainage material. For details see CCMC 12878-R.
9. The product label and/or packaging must be clearly identified with the following:

- manufacturer's name or logo; and
- the phrase "CCMC 12266-R".

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 General

The "Platon Dampproofing Membrane" test results are summarized in Table 4.1.1.

Table 4.1.1 Test Results for "Platon Dampproofing Membrane"

Property		Requirements	Results	
Thickness (mm)		min. 0.6 in flat area	0.6	
		min. 0.5 in dimpled area	0.5	
Weight (g/m ²)		min. 500	567	
Impact load		min. 12 of 15	15 of 15	
Static puncturing (rating of 3)		min. 5 of 6	6 of 6	
Cold bending		no visible cracking	no visible cracking	
Water vapour permeance (ng/Pa·s·m ²)		max. 37	3.0	
Original sample	tensile strength at yield (kN/m)	min. 8	MD 12, XD 14.2	
	elongation at break (%)	min. 25	MD 85, XD 525	
Sample after water immersion	tensile strength at yield (%)	80 of original	MD 108, XD 109	
	elongation at break (%)	70 of original	MD 74, XD 100	
Sample after heat aging	dimensional change (%)	± 1	MD -1.6 ¹ , XD -1.4 ¹	
	weight change (%)	0.10	-0.02	
	tensile strength at yield (%)	80 of original	MD 93, XD 104	
	elongation at break (%)	70 of original	MD 100, XD 100	
Chemical attack exposure	ammonium chloride	tensile strength at yield (%)	80 of original	MD 92, XD 98
		elongation at break (%)	70 of original	MD 206, XD 100
	sodium sulfate	tensile strength at yield (%)	80 of original	MD 94, XD 99
		elongation at break (%)	70 of original	MD 82, XD 100
Compressive strength (kN/m ²)		min. 100	247 ²	

Notes to Table 4.1.1:

- 1 Deemed acceptable based on an acceptable compressive strength test after heat aging.
 - 2 The compressive load test was done on the dimpled surface.
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Report Holder

Armtec Limited
33 Centennial Road
Orangeville, ON L9W 1R1

Telephone: 519-942-2643

Fax: 519-942-2850

Plant(s)

Orangeville, ON

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