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CCMC 12878-R

CCMC *Evaluation Report*

DIVISION 02622

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System Platon

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1. Purpose Of Evaluation

The manufacturer sought confirmation from the Canadian Construction Materials Centre (CCMC) that "System Platon" can serve as a drainage material conforming to the intent of the Ontario Building Code (OBC).

2. Opinion

Test results and assessments provided by the manufacturer show that "System Platon" complies with CCMC's Technical Guide for Foundation Drainage Systems, Masterformat number 02712, dated 95-03-07 as a class B, Type 2 drainage product. If used in accordance with the limitations and conditions stated in this report, "System Platon" provides a level of performance equivalent to that required in:

- Ontario Building Code, 1997, Clause 9.142.1.(2)(b), and Sentence 9.14.2.1.(3).

Ruling No. 99-10-69 (12878-R) authorizing the use of this product in Ontario, subject to the terms and conditions contained in the Ruling, was made by the Minister of Municipal Affairs and Housing on 30 July, 1999 pursuant to s.29 of the Building Code Act, 1992 (see Ruling for terms and conditions).

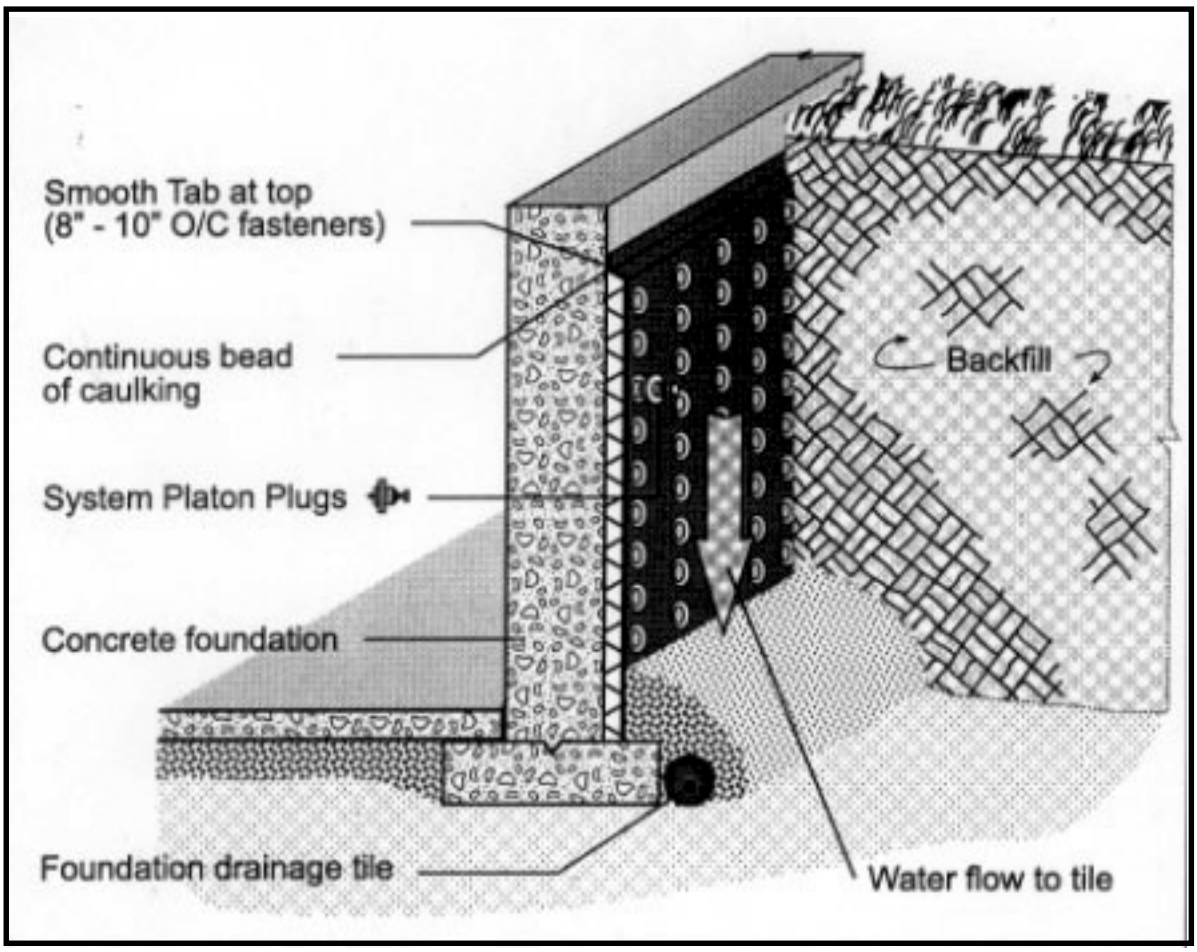
Canada Mortgage and Housing Corporation permits the use of this product on construction financed or insured under the National Housing Act.

3. Description

"System Platon" is a carbon-compounded high-density polyethylene sheet roll, manufactured in such a way that the material has dimpled surface on one side to provide an air gap between the concrete wall and the adjacent soil.

"System "Platon" sheet pattern features double cone dimples 6mm high and about 30mm on centre, joined by channels. The product is available in rolls 0.6 mm thick and 20 m in length, and up to 2.44 m in width.

The foundation wall installation is shown in Figure 1.



4. Usage and Limitations

- "System Platon" is a class B Type 2 drainage product designed to be used as a protective layer or a capillary-breaking layer against transient or intermittent water that may come on contact with the wall surface.

- As a Type 2 drainage product, "System Platon" has been evaluated for use in depths up to 3.7 m below grade.

- "System Platon" is suitable for use in pervious and semi-pervious soil conditions that allow for some drainage through the soil. These soils comprise very fine sand, organic and inorganic silts, mixtures of sand, silt and clay, glacial till, and stratified clay deposits that have a soil grain size defined by D10>0.002 mm, where D10 is the sieve size that permits 10% by weight of the soil to pass through it in a sieve analysis test.

  "System Platon" is no to be used in practically impervious soil conditions where the soil grain size is D10<0.002 mm.

- "System Platon" also provides a level of dampproofing performance equivalent to that required in the NBC 1995, Subsection 9.13.2. (See CCMC Evaluation Report No. 12266-R)

- "System Platon" is only one portion of the total foundation drainage system that consists of a combination of design and construction processes that use different products. A well-functioning weeping tile or pipe system to direct water away from the foundation wall is required.

- The Placement and grading of backfill shall conform to the requirements of Subsection 9.12.3. of the OBC. It is recommended that an impervious "topping off" layer of clay silt material be placed on top of the backfill with a positive slope leading surface water away from the building.

- "System Platon" must be installed in accordance with the manufacturer's instructions. "System Platon" must be protected from exposure to ultra-violet radiation (sunlight) within 30 days of its installation.

This Evaluation Report is applicable only to products identified directly or their packaging with the following: "CCMC 12878-R."

5. Performance

Testing was conducted at an independent laboratory recognized by CCMC.

The results of testing "System Platon" are summarized in Table 1.

Table 1. Performance Requirements Test for "System Platon"

Property	Requirement	Result
Side Water Inflow Rate (ml/15 min.) 1.0 gradient @30 kPa	500	Passed
Deformation under Compressive Load (mm)	<3@65 kPa	Passed
Deformability % -machine direction -cross machine direction	 >=15 >=10	 59 525

Additional Information

A second series of tests, to the criteria indicated in table 1, were carried out on specimens of Platon material that had met the requirements related to the subjected to the various exposures (water immersion, heat aging, and chemical attack) indicated in CCMC Technical Guide for Rigid Polyethylene or Polystyrene Dampproofing Membrane, Masterformat number 07176, dated 94-05-25.

For more information contact:

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Note: Readers are asked to refer to limitations imposed by NRC on the interpretation and use of this report. These limitations are included in the introduction to CCMC's Registry of Product Evaluations, of which this report is part.

Readers are advised to confirm that this report has not been withdrawn or superseded by a later issue by contacting the Canadian Construction materials Centre, Institute for Research in Construction, National Research Council of Canada, Montreal