

# **Evaluation Report CCMC 14017-R AmDry**

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# 1. Opinion

It is the opinion of the Canadian Construction Materials Centre (CCMC) that "AmDry," when used as a panel underlay in accordance with the conditions and limitations stated in Section 3 of this Report, complies with the National Building Code of Canada (NBC) 2015:

- 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 9.23.15.2.(1), Material Standards (Subflooring)
  - o Article 9.30.2.2., Materials and Thickness (Panel-Type Underlay)

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 an insulating floor underlay panel manufactured using cellulosic composite material consisting of Type 2 expanded polystyrene (EPS) foam board meeting CAN/ULC-S701-11, "Thermal Insulation, Polystyrene, Boards and Pipe Covering." The product is available in two thicknesses: the 25-mm AmDry R5 and the 38-mm AmDry R7. The foam board is glued to 12-mm oriented strand board (OSB) on the top, and adhered to thin polystyrene film on the bottom. The bottom also has channels to facilitate drainage and ventilation. The panels are fitted using a plastic connector system.



Figure 1. "AmDry"

## 3. Conditions and Limitations

CCMC's compliance opinion in Section 1 is bound by the "AmDry" being used in accordance with the conditions and limitations set out below.

- The product should not be used on floors subjected to flooding or repeated wetting.
- The product must be installed in accordance with the "Expanded AmDry Installation Guide," dated July 2015.
- Access to floor drains or cleanouts should be maintained and not restricted.
- The EPS insulation used in this system must comply with CAN/ULC-S701, Type 2.
- The OSB used in this system must comply with CSA O437-93(R2011), "OSB and Waferboard."
- The product packaging must be clearly identified with the phrase, "CCMC 14017-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 Physical Requirements

Table 4.1.1 Results of Testing of Physical Requirements of Panel Underlay

Property	Unit	Requirement	Result
<b>Deformation under compressive load</b>	mm	≥ 3 mm air gap @ 65 kPa	Pass (R5 and R7)
Resistance to fungus	_	Fungus growth not greater than that on comparative item	Pass (R5 and R7)
Linear expansion @ 50% to 90% RH	%	≤ 0.2	0.17 (R5)
			0.20 (R7)
Edge thickness swelling	%	≤ 1	10.5 (R5) <sup>(1)</sup>
			6.6 (R7) <sup>(1)</sup>

#### Note to Table 4.1.1:

(1) Sample was submerged in water for 24 hours. Limited to use in areas where the product is not subject to flooding and repeated wetting.

## 4.2 Performance Requirements

Table 4.2.1 Results of Testing of Ceramic Installations, Concentrated Loadbearing Strength and Impact Load

Property			Unit	Requirement	Result
Robinson Test for ceramic installations:  Assembly: Concrete flereinforced cement base 150 mm × 150 mm por thick) <sup>(1)</sup> Assembly: Concrete flereinforced cement base 100 mm × 200 mm quathick) <sup>(1)</sup>		e coat, bonding agent,	N/A	No damage	Pass
		e coat, bonding agent,	N/A	No damage	Pass
Concentrated loadbearing strength (size of indentation after 1 hour recovery time)			mm	≤ 2	Pass (R5 and R7)
Hard impact		@ 5.4 N·m	mm	Indentation ≤ 1	Pass (R5 and R7)
		@ 10.9 N·m	N/A	Minimum average failure mode	Pass (R5 and R7)
Soft impact		@ 10.2 N·m	N/A	No damage	Pass (R5 and R7)
		@ 20.4 N·m	N/A	Minimum average failure mode	Pass (R5 and R7)

#### Note to Table 4.2.1:

(1) The ceramic tile tested represents the smallest and thinnest tiles evaluated. This evaluation does not provide an opinion on ceramic tiles that are smaller or thinner than the referenced assembly.

## **Report Holder**

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# Plant(s)

Toronto, ON

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