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CCMC 11629-R



*EVALUATION
REPORT*

DIVISION	03810
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Re-evaluation due	2007-10-28

Super Panel

Bed Roc Industries Limited
9188-132 "B" Street
Surrey, British Columbia
V3V 7L5

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Plant: 102-9555-194A Street
Surrey, British Columbia

1. Purpose of Evaluation

The proponent sought confirmation from the Canadian Construction Materials Centre (CCMC) that "Super Panel" can serve as an exterior backerboard, as an interior backerboard and as a rigid-floor underlay for ceramic tiles, in compliance with the intent of the National Building Code of Canada (NBC) 1995.

2. Opinion

Subject to the limitations and conditions stated in this report, test results and assessments provided by the proponent show that "Super Panel" complies with CCMC's Technical Guide for Cement Board, Masterformat number 03810, dated 2001-01-30, and provides a level of performance equivalent to that required in:

- NBC 1995, Article 9.23.16.2., Thickness, Rating and Material Standards; Article 9.29.10.4., Moisture Resistant Backing; and Article 9.30.2.2., Materials and Thickness.

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

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3. Description

“Super Panel” is a cementitious board that is reinforced with glass-fibre mesh embedded in its back and front surfaces. The core of the board consists of a mixture of Portland cement and lightweight aggregates. The nominal mass per unit area of the board is 13.93 kg/m².

“Super Panel” is available in sheets 915 mm wide and 1220 mm, 1525 mm, 1626 mm or 2438 mm long, and 11 mm thick. The edges of the boards are cut square. Accessories include special glass-fibre joint tape and fasteners. Figure 1 illustrates the board’s construction.

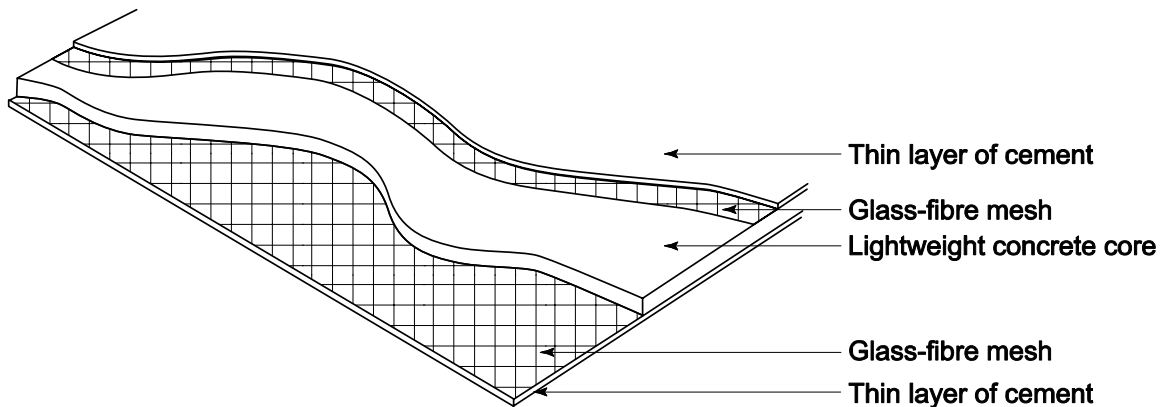


Figure 1. “Super Panel”

4. Usage and Limitations

“Super Panel” may be used as an interior backerboard on wood or metal studs for ceramic tile installations around showers, tubs and other interior areas requiring a moisture-resistant backing.

The product may also be used as a non-structural exterior backerboard. An exterior backerboard is a board installed on exterior wall and gable end framing to provide intermediate support for exterior cladding, such as metal or vinyl sidings. The board must not be used to attach cladding materials.

When “Super Panel” is used as an exterior backerboard, it must be protected with a sheathing membrane as required in NBC 1995, Subsection 9.23.17., Wall Sheathing Membrane.

When the product is installed adjacent to a concealed space within a wall assembly (e.g., adjacent to an air space behind the cladding), proper fire stops may be required in accordance with the NBC 1995, Subsection 9.10.15., Fire Stops.

The exterior and interior backerboard installations are limited to support spacing no greater than 400 mm on centre (o.c.) and must be carried out in accordance with the manufacturer’s current instructions. In these installations, “Super Panel” shall not be considered to provide bracing that complies with Sentence 9.23.10.2.(2) of the NBC 1995. The product shall not be used in areas where it is required to provide lateral strength or other structural loading resistance.

The product may be used as an underlay for ceramic tile, slate and marble floors, provided that it is installed in accordance with the NBC 1995, Subsection 9.30.2., Panel-Type Underlay, and with the manufacturer’s current instructions.

“Super Panel” is unaffected by water, but it is not impermeable. Any areas behind the product that must be kept totally free of moisture, water or steam must be protected by an impermeable membrane installed between the board and the framing.

“Super Panel” is limited to applications where combustible construction is permitted in accordance with the NBC 1995. The cementitious board must not be used in fire-rated assemblies, unless evidence of conformity to applicable requirements is provided by an accredited organization.

5. Performance

Testing was conducted at an independent laboratory recognized by CCMC. The test results for “Super Panel” are summarized in tables 1 and 2.

This product or its wrapping must be identified with the following information:

- product’s name
- manufacturer’s name or logo; and
- the phrase “CCMC 11629-R.”

Table 1. Material Physical Properties

Property	Unit	Requirement	Test Result
Thickness Tolerance	mm	± 1.6	Passed
Width Tolerance	mm	± 3	Passed
Length Tolerance	mm	± 3	Passed
Squareness	mm/m	≤ 2	Passed
Mass per Unit Area	kg/m ²	± 5 % of the nominal value	14.51
Water Absorption - 24-hour submersion - 48-hour submersion	% by weight	Report values	25.4 26.4

Table 2. Performance Requirements for Intended Use

Property	Unit	Requirement	Test Results
Humidified Deflection		$\leq 1/360$	Passed
Linear Variation - machine direction - cross direction	%	≤ 0.20	0.10 0.08
Flexural Strength - machine direction - cross direction	MPa	≥ 5.17	6.42 6.93
Hardness (Core, End and Edge)	N	≥ 2200	3364
Impact Resistance ▪ hard-impact body - 5.4 N·m - 10.9 N·m ▪ soft-impact body - 40.8 N·m - 102 N·m	mm	Indentation ≤ 1 Minimum avg. failure load No damage, Residual deflection ≤ 5 Minimum avg. failure load	Passed
Fastener Pull-Through Resistance	N	≥ 308	742
Fastener Lateral Resistance	N	≥ 400	578 ⁽¹⁾
Water Vapour Permeance	ng/(Pa·s·m ²)	≥ 170	263

Note to Table 2:

(1) Fastener lateral resistance at 25 mm from the edge.

For more information contact:

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Readers are advised to confirm that this report has not been withdrawn or superseded by a later issue by referring to <http://irc.nrc.gc.ca/ccmc>, or by contacting the Canadian Construction Materials Centre, Institute for Research in Construction, National Research Council of Canada, Montreal Road, Ottawa, Ontario, K1A 0R6; Telephone (613) 993-6189, Fax (613) 952-0268.