Evaluation Report CCMC 14013-R DRILcore® SmartWall

MASTERFORMAT: 09 29 30
Evaluation issued: 2015-05-01
Re-evaluation due: 2018-05-01

1. Opinion

It is the opinion of the Canadian Construction Materials Centre (CCMC) that “DRILcore® SmartWall”, when used as a finish wall system for the basement in residential housing 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)(a), Division A, using the following acceptable solutions from Division B:
  - Article 9.10.17.1., Flame Spread Rating of Interior Surfaces
  - Article 9.10.17.10., Protection of Foamed Plastics
  - Article 9.13.2.6., Moisture Protection for Interior Finishes
  - Article 9.23.2.3., Protection from Dampness
  - Article 9.25.2.2., Insulation Materials
  - Article 9.29.5.2., Materials (Gypsum Board Finish (Taped Joints))

- 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:
  - Article 9.25.2.1., Required Insulation

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

2. Description

“DRILcore® SmartWall” panels are prefabricated non-loadbearing wall panels for the interior finish of the basement of detached or semi-detached housing. The panels consist of integrated framing, insulation, vapour barrier and drywall with a tongue and groove system to interlock the panels together. The panels are 600 mm wide and 2.44 m high. Two vertical channels and three horizontal channels are included for electrical wiring.
Figure 1. Front view of the product

3. Conditions and Limitations

CCMC’s compliance opinion in Section 1 is bound by the “DRJcore® SmartWall” being used in accordance with the conditions and limitations set out below.

- Use of the product is permitted for finishing the basement of houses up to two storeys high that fall under the provisions of Part 9 of Division B of the NBC 2010, subject to all of the conditions listed below.
- The gypsum board finish must be in accordance with Subsection 9.29.5., Gypsum Board Finish (Taped Joints), of Division B of the NBC 2010.
- The EPS insulation used in this system must comply with CAN/ULC-S701-11, “Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering,” Type I.
- Foamed plastic insulation in the panel must be protected from the adjacent space in the building in accordance with Article 9.10.17.10. of Division B of the NBC 2010.
- The interior finish panels must be protected from moisture in accordance with Article 9.13.2.6. of Division B of the NBC 2010.

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 Material Requirements

4.1.1 Compliance of the EPS Thermal Insulation

NEOPOR® expanded polystyrene thermal insulation is a critical component that is certified in accordance with CAN/ULC-S701-11 by Warrack Hershey (WH-ETL).

4.1.2 Compliance of OSB Studs

The OSB studs are cut from rim board material listed under CCMC 13237-L in accordance with ANSI/APA PRR 410-2011.

4.1.3 Compliance of Gypsum Board

The 12.7-mm-thick gypsum boards are manufactured in accordance with CAN/CSA-A82.27-M91, “Gypsum Board.”
4.2 Performance Requirements

4.2.1 Compliance with Plastic Foam Insulation Protection

Table 4.2.1.1 Results of Testing

<table>
<thead>
<tr>
<th>Assembly</th>
<th>Tested to Standard</th>
<th>Results</th>
<th>Classification</th>
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<tbody>
<tr>
<td>DRicore® SmartWall (12.7-mm-thick gypsum board, 88.9-mm-thick polystyrene, 44.5-mm × 31.7-mm tongue and groove OSB, synthetic resin adhesive)</td>
<td>CAN/ULC-S124-06, “Standard Method of Test for the Evaluation of Protective Coverings for Foamed Plastic”</td>
<td>At the end of 10 minutes, the temperature rise at the interface of the protective cover and the foamed plastic has not exceeded 140°C average or 180°C at any one of the thermocouples</td>
<td>B Satisfies Appendix Note A-3.1.5.12.(2)(e), Foamed Plastic Insulation Protection, of Division B of the NBC 2010</td>
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Report Holder

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