

Date of Authorization
BMEC Authorization
BMEC Application

July 28, 2005
05-06-310
#A2004-04

Authorization Report: Delta® Drainwrap**1. Applicant**

Cosella-Dorcken Products Inc.
4655 Delta Way
Beamsville, Ontario
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2. Manufacturing Facilities

Cosella-Dorcken Products Inc.
4655 Delta Way
Beamsville, Ontario
L0R 1B4

3. Description

The Delta® Drainwrap is a 0.6 mm thick high-density polyethylene sheet product with dimpled profile having an overall thickness of about 7 mm. The dimples are located 41 mm on centre, in rows half that distance apart. Each dimple provides an approximate 6 mm high space on its convex side, and is connected in four directions to adjacent dimples by channels approximately 3 mm high.

The Delta® Drainwrap sheet may be overlapped with dimples and channels on one sheet interlocking with the corresponding portions on the other sheet. When installed as spacing between siding and sheathing, the product creates a continuous uninterrupted series of ventilation passageways on both sides.

The Delta® Drainwrap is intended to be used as a ventilated exterior wall cladding spacer and as a ventilating spacer for wall assemblies. The Delta® Drainwrap is not intended to replace the need for application of an air or vapour barrier.

4. Authorization Requested

The applicant sought authorization for the use the Delta® Drainwrap as an alternative to "Breathable Type Sheathing Paper" as required in Sentence 9.23.17.1.(1) of the Building Code.

5. Assessment

Reports and assessments provided by the applicant show that if Delta® Drainwrap is designed, performance tested, installed and maintained in accordance with the limitations in the manufacturer's instructions and the conditions stated in this authorization, the level of performance required by the Building Code will be provided.

The reports submitted and reviewed, but were not limited to the following:

1. University of Waterloo, Building Engineer Group "Delta® Drainwrap System: Drying & Drainage Study" April 2005.
2. Oak Ridge National Laboratory "Hygrothermal Performance Report".
3. Larden Muniak Letter Report "Equivalency of Delta® Drainwrap System to Sheathing Membranes Regulated by OBC 9.23.17.1".
4. Cosella-Dorken Products Inc., Delta® Structure Drain Product Drawings.
5. Delta®-Structure Drain - Installation Guidelines and Drawings.
6. Manufacturer's Information "Self Adhesive Flashing".
7. Delta® - Drainwrap Product Warranty.
8. University of Waterloo, Building Engineer Group letter re: Delta DrainWrap, dated June 13, 2005.

6. Authorization

The Delta® Drainwrap is authorized for use in lieu of sheathing paper as it is required by Sentence 9.23.17.1.(1) of the Building Code; all other requirements pertaining to the construction and installation are subject to the requirements of the Building Code, and are subject to the following specific terms and conditions of this Authorization:

A. Specific Terms and Conditions

1. This Authorization is valid only for Cosella Dorken Products Inc.
2. The Delta® Drainwrap shall only used be in conjunction with those cladding materials listed in Articles 9.27.1.1. and 9.27.1.2. of the Building Code.
3. The Delta® Drainwrap was not evaluated for use with propriety wall assemblies such as exterior insulation and finish systems (EIFS), or insulated concrete forms (ICFs), above or below grade.
4. The Delta® Drainwrap shall be installed as per the manufacturer's installation instructions, as they apply to those claddings listed in Articles 9.27.1.1. and 9.27.1.2. of the Building Code.
5. The Delta® Drainwrap shall not be used in a wall assembly, when required to be of noncombustible construction.

6. A wall assembly incorporating the Delta® Drainwrap shall utilize a vapour barrier having a permeance not greater than 15 ng/(pa•s•m²).
7. Details illustrating the method in which the Delta® Drainwrap will be installed to resist the migration and penetration of water behind the Delta® Drainwrap and around openings (e.g. windows, doors, vent stacks...) shall be submitted to the authority having jurisdiction for review and approval.
8. Details illustrating the method in which the Delta® Drainwrap will be installed ensuring that good ventilation –clear and continuous openings at the top and bottom– and drainage is provided shall be submitted to the authority having jurisdiction for review and approval.
9. Cladding shall be installed in such a manner so as to maintain its integrity as well as the required drainage on both sides of the Delta® Drainwrap, and be attached securely to the building.

B. General Conditions

1. The use of the Delta® Drainwrap must comply with the *Building Code Act, 1992* as amended or re-enacted from time to time (the “BCA”) and, except as specifically authorized herein, with the Building Code.
2. A copy of this Authorization shall be included with an application for a building permit and shall be posted and maintained on the site of the construction with the building permit.
3. The Applicant named in Section 1 hereof shall promptly notify the BMEC of:
 - (a) the failure of the Applicant, or of the material, system or building design that is the subject matter of this authorization, to comply with any of the terms and conditions set out in Section A. above; or
 - (b) the occurrence of any of the events described in Sections B. 4. (a) and (b) (ii) below.
4. The BMEC may amend or revoke this Authorization where it determines that:
 - (a) any change has been made to:
 - (i) the material, system or building design that is the subject matter of this Authorization;
 - (ii) the address of the applicant specified in Section 1 of this authorization; or,
 - (iii) the ownership of the Applicant specified in Section 1 or of the companies specified in Section A 1.1 of this authorization.
 - (b) the use of the material, system or building design authorized herein;

- (i) does not comply with the BCA or any relevant legislation as they may be amended or re-enacted from time to time; or
 - (ii) provides an unsatisfactory level of performance, in situ.
- (c) the Applicant, or the material, system or building design that is the subject matter of this Authorization, has failed to comply with any of the terms and conditions set out in Section A. above; or
- (d) any Building Code provision relevant to this authorization has been amended or remade.
5. Where the BMEC receives additional information concerning the material, system or building design authorized herein, the BMEC may review this Authorization and the BMEC may after the review amend or revoke this Authorization as in the opinion of the BMEC may be necessary.

Dated at Toronto this 28 day of July 2005.

BUILDING MATERIALS EVALUATION COMMISSION

Judy Beauchamp, Member