



DÖRKEN SYSTEMS INC.
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DELTA®-DRY & LATH and
BORAL DRAIN ‘N’ DRY LATH

ADDITIONAL COMPANY NAME:

BORAL STONE PRODUCTS, LLC
2256 Centennial Road
Toledo, Ohio 43617
<http://www.boralamerica.com>

CSI Section:

07 77 00 Wall Specialties
09 22 36 Lath

1.0 RECOGNITION

DELTA®-DRY & LATH and BORAL DRAIN ‘N’ DRY (hereafter DELTA®-DRY & LATH) recognized in this report has been evaluated for use as a substrate to apply to cement plaster (Stucco). The structural performance, drainage efficiency and physical properties of the DELTA®-DRY & LATH complies with the intent of the provisions of the following codes and regulations:

- 2021, 2018, and 2015 International Building Code® (IBC)
- 2021, 2018, 2015 International Residential Code® (IRC)

2.0 LIMITATIONS

Use of the DELTA®-DRY & LATH recognized in this report is subject to the following limitations:

2.1 The DELTA®-DRY & LATH shall be installed in accordance with this evaluation report, the applicable code, and the manufacturer’s published installation instructions. If there are any conflicts, the more restrictive governs.

2.2 Design wind loads resisted by the DELTA®-DRY & LATH system described in this report shall be determined in accordance with the applicable code and shall not exceed the allowable transverse loads for cement plaster (stucco) specific in Chapter 25 of the IBC or Chapter 7 of the IRC, as applicable.

2.3 Except as noted in Section 3.4 of this report, installations are limited to use in Type V-B construction for the IBC and dwellings constructed in accordance with the IRC, as applicable.

2.4 Use of DELTA®-DRY & LATH with claddings other than cement plaster (stucco) or adhered thin masonry veneer is outside the scope of this report.

2.5 Use of DELTA®-DRY & LATH as a component of a manufactured stone veneer system shall be acceptable to the manufacturer of the manufactured stone veneer system.

2.6 Use in Fire-resistance rated assemble (ASTM E119) is outside the scope of this report.

2.7 DELTA®-DRY & LATH recognized in this report is produced by Dörken Systems Inc. in Beamsville, Ontario, Canada.

3.0 PRODUCT USE

3.1 General: DELTA®-DRY & LATH and BORAL DRAIN ‘N’ DRY (hereafter DELTA®-DRY & LATH) is used as a substrate to apply cement plaster (Stucco) complying with the Chapter 25 of the IBC or Chapter 7 of the IRC, as applicable, and to provide a means of draining water to the exterior that enters a cement plaster or adhered thin veneer masonry wall cladding.

3.2 Design: The gravity load (shear) capacity and negative wind load (pull-out) capacity of proprietary fasteners shall be justified to the satisfaction of the building official.

3.3 Installation: DELTA®-DRY & LATH is installed in accordance with this report, the applicable code and the manufacturer’s published installation instructions. Where conflicts occur, the more restrictive governs. The manufacturer’s published installation instructions shall be available and strictly adhered to at all times on the jobsite during installation.

DELTA®-DRY & LATH dimpled plastic sheets are installed with no overlap at the horizontal and vertical joints. The Glass Fiber Lath shall overlap by a minimum of 1 inch (25.4 mm) at end laps and side laps. Weep screeds and other components of a cement system shall be installed in accordance with the code. Cement plaster (stucco) shall be installed in accordance with Chapter 25 of the IBC or Chapter 7 of the IRC, as applicable.

3.3.1 Wood Substrate: When tested in accordance with ASTM E2556, the DELTA®-DRY & LATH demonstrated a water resistance equal to or greater than a single layer of ASTM E2556, Type I. When installed over wood-based sheathing, DELTA®-DRY & LATH may be installed as noted in Sections 3.3.1.1 through 3.3.1.3 of this report

The product described in this Uniform Evaluation Service (UES) Report has been evaluated as an alternative material, design or method of construction in order to satisfy and comply with the intent of the provision of the code, as noted in this report, and for at least equivalence to that prescribed in the code in quality, strength, effectiveness, fire resistance, durability and safety, as applicable, in accordance with IBC Section 104.11. This document shall only be reproduced in its entirety.





3.3.1.1 2021 IBC and IRC:

3.3.1.1.1 IBC Section 2510.6.1(1) and IRC Section R703.7.3.1(1): DELTA®-DRY & LATH may be used with a single layer of 10-minute Grade D paper or ASTM E2556, Type I water resistive barrier.

3.3.1.1.2 IBC Section 2510.6.1(2) and IRC Section R703.7.3.1(2): DELTA®-DRY & LATH may be used as a nonwater absorbing layer between the water-resistive barrier and stucco.

3.3.1.1.3 IBC Section 2510.6.2(1) and IRC Section R703.7.3.2(1): DELTA®-DRY & LATH may be used to provide a space or drainage material not less than 3/16 inch (4.8 mm) in depth.

3.3.1.1.4 IBC Section 2510.6.2(2) and IRC Section R703.7.3.2(2): When tested in accordance with Annex A2 of ASTM E2925, DELTA®-DRY & LATH demonstrates a drainage efficiency in excess of 90 percent.

3.3.1.2 2018 IBC and IRC:

3.3.1.2.1 IBC Section 2510.6:

DELTA®-DRY & LATH may be used to provide an intervening, substantially nonwater-absorbing layer or drainage space between the stucco and water-resistive barrier in accordance with Section 2510.6 Exception 1.

DELTA®-DRY & LATH may be used to provide a ventilated airspace between the stucco and water-resistive barrier in accordance with Section 2510.6 Exception 2.

3.3.1.2.2 IRC Section R703.7.3:

DELTA®-DRY & LATH may be used to provide an intervening, substantially nonwater-absorbing layer or drainage space between the stucco and water-resistive barrier in accordance with the Exception to Section R703.7.3.

3.3.1.3 2015 IBC and IRC:

DELTA®-DRY & LATH may be used to provide an intervening, substantially nonwater-absorbing layer or drainage space between the stucco and water-resistive barrier in accordance with the Exception to IBC Section 2510.6 and the Exception to IRC Section R703.7.3.

3.3.2 Concrete and Masonry Substrates: DELTA®-DRY & LATH may be fastened directly to concrete and masonry in accordance with IBC Section 2510.3 and IRC Section R703.6.1, as applicable. Fasteners shall be spaced a maximum of 6 inches (152 mm) on center vertically and 16 inches (406 mm) on center horizontally.

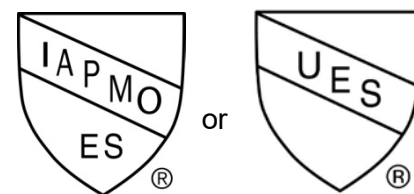
3.4 Types I through IV Construction: The DELTA®-DRY & LATH may be used on buildings of any height of Type I, II, III, or IV construction as shown in Table 1 of this report.

4.0 PRODUCT DESCRIPTION

DELTA®-DRY & LATH consists of a dimpled-profile, high-density polyethylene plastic with a layer of glass fiber lath bonded on one face. DELTA®-DRY & LATH has an 11-millimeter (0.43 inch) profile, a nominal weight of 10.2 pounds per 100 square feet (55 g/m²) and is provided in 39.4-inche-wide (1.00 m) rolls. The glass fiber lath consists of vertical and horizontal fibers and is self-furring.

5.0 IDENTIFICATION

The DELTA®-DRY & LATH and BORAL DRAIN 'N' DRY product is identified by a label on the container of each roll, or by printing on the product, that includes the report holder's name (Dörken Systems Inc. or Boral Stone Products, LLC), manufacturing location (Beamsville, Ontario, Canada), product name (DELTA®-DRY & LATH or BORAL Drain 'N' Dry), product size, date of manufacture, and the Evaluation Report number (ER-323). Either mark of conformity may be used as shown below:



IAPMO UES ER-323

6.0 SUBSTANTIATING DATA

Test reports are from laboratories in compliance with ISO/IEC 17025.

6.1 Data in accordance with the Acceptance Criteria for Moisture Drainage Systems Used with Exterior Cement Plaster or Adhered Masonry Veneer Walls, (AC356), dated October 2009, editorially revised December 2018.

6.2 Data in accordance with the Acceptance Criteria for Glass Fiber Lath Used in Cementitious Exterior Wall Coatings or Exterior Cement Plaster (Stucco) (AC275), dated April 2011, editorially revised August 2013.

6.3 Test report in accordance with NFPA 285 and data analysis.



7.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of research completed by IAPMO Uniform Evaluation Service on Dörken Systems Inc. DELTA®-DRY & LATH and BORAL DRAIN 'N' DRY to assess conformance to the codes shown in Section 1.0 of this report and serves as documentation of the product certification. Products are manufactured at the location noted in Section 2.7 of this report under a quality control program with periodic inspections under the surveillance of IAPMO UES.

For additional information about this evaluation report please visit www.uniform-es.org or email us at info@uniform-es.org



TABLE 1—NFPA 285 COMPLYING EXTERIOR WALL ASSEMBLIES

Wall Component	Specific Component
Base Wall Use Item 1, 2, 3 or 4	<ol style="list-style-type: none"> 1) Concrete Base Wall 2) CMU Base Wall 3) One layer of 5/8-inch thick type X gypsum wallboard or 1/2-inch MgO board installed on the interior side of minimum 3 5/8-inch, minimum 20-gauge galvanized steel studs spaced a maximum of 24 inches on center. 4) Fire-retardant treated wood studs spaced a maximum of 24 inches on center with 5/8-inch Type X gypsum wallboard or 1/2-inch MgO board in the interior.
Fire Stopping in Stud Cavity at Floor Lines Use Item 1 or 2	<ol style="list-style-type: none"> 1) 4-inch, 4 pcf mineral wool (friction fit or installed with Z clips) 2) FRT lumber – 1 1/2 -inch- thick minimum
Cavity Insulation Use Item 1, 2 or 3	<ol style="list-style-type: none"> 1) None 2) Full or partial fill mineral wool 3) Full or partial fill fiberglass batts
Composite Exterior Sheathing Use Item 1, 2 or 3 Note: The ArmorWall panel is assumed to be bare with no water-resistive barrier (WRB). The WRB below is allowed on the ArmorWall surface.	<ol style="list-style-type: none"> 1) Maximum 3 3/4-inch-thick ArmorWall Panels (Maximum 3/4-inch foam insulation with 1/2-inch MgO Board on the exterior side) as manufactured by MaxLife installed vertically or horizontally and attached directly to substrate with insulation facing inward. Installed at a minimum #14-13 DP1 self-drilling screws spaced 12 inches on center vertically on every stud. 2) ArmorWall SP Max 4 1/4-inch-thick ArmorWall Panels (Maximum 3/4-inch foam insulation with 1/2-inch MgO Board on both sides) as manufactured by MaxLife installed vertically or horizontally and attached directly to substrate with insulation facing inward. Installed at a minimum #14-13 DP1 self-drilling screws spaced 12 inches on center vertically on every stud. 3) ArmorWall HD, Maximum 3 3/4-inch-thick ArmorWall Panels (Maximum 3 1/4-inch foam insulation with 1/2-inch MgO Board on the exterior side) as manufactured by MaxLife installed vertically or horizontally and attached directly to substrate with insulation facing inward. Installed at a minimum #14-13 DP1 self-drilling screws spaced 12 inches on center vertically on every stud. These panels use 2-inch-wide strips of 1/2-inch MgO board on the interior side of the MgO face sheet spaced 16 inches on center to allow increased substrate thickness for cladding attachment fasteners and shear.
WRB over Composite Exterior Sheathing	Dorken Systems Inc. – Delta Dry & Lath
Exterior Cladding Use Item 1 or 2	<ol style="list-style-type: none"> 1) Stucco – minimum 7/8-inch-thick exterior cement plaster and lath 2) Thin brick/cultured stone, not less than 3/4-inch-thick set in thin-set adhesive and metal lath that has been tested to ASTM E119 (brick exposed to furnace) and remains in place for a minimum of 30 minutes, or has passed an NFPA 285 test
Opening Perimeters Use ArmorWall Protection Base wall opening perimeter as noted.	To protect ArmorWall use 1 1/2-inch-thick fire-retardant treated lumber. Base wall opening perimeter shall be minimum 20-gauge C Channel when using steel stud walls or 1 1/2-inch thick FRT lumber when using FRT studs. When the base wall is CMU or concrete, steel or FRT framing may be added to the rough opening to attach/install windows/doors, etc.
Panel to Panel Connection	For prefabricated assemblies, connect to panels with either option listed below: <ol style="list-style-type: none"> 1) Sandwiching 2-inch-depth, 4 pcf mineral wool then cover the joint with maximum 6-inch-wide seam tape. 2) Noncombustible backer rod and caulked with Class A per ASTM E84 silicone building sealant.