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ESR-2987

Reissued 12/2017
Revised 05/2019

ICC-ES Evaluation Report

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This report is subject to renewal 12/2019.

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION

SECTION: 07 77 00—WALL SPECIALTIES

REPORT HOLDER:

DORKEN SYSTEMS INC.

EVALUATION SUBJECT:

DELTA®-DRY RAINSCREEN DRAINAGE SYSTEMS



“2014 Recipient of Prestigious Western States Seismic Policy Council (WSSPC) Award in Excellence”



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Section: 07 77 00—Wall Specialties

REPORT HOLDER:

DORKEN SYSTEMS INC.

EVALUATION SUBJECT:

DELTA®-DRY RAINSCREEN DRAINAGE SYSTEMS

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2018, 2015, 2012, 2009 and 2006 *International Building Code®* (IBC)
- 2018, 2015, 2012, 2009 and 2006 *International Residential Code®* (IRC)

Properties evaluated:

- Material properties
- Drainage efficiency

2.0 USES

DELTA®-DRY Rainscreen and DELTA®-DRY STUCCO & STONE Rainscreen With Mortar Screen drainage systems are used to provide a means of draining water, that enters a cement plaster (stucco) or adhered masonry wall envelope to the exterior, as required by 2018 IBC Section 1402.2 (2015, 2012, 2009 and 2006 IBC Section 1403.2) and Section R703.1.1 of the IRC. These products are used in exterior wall systems in Type V-B construction (IBC) and dwellings constructed in accordance with the IRC.

3.0 DESCRIPTION

DELTA®-DRY rainscreen drainage systems consist of a high-density polyethylene (HDPE) plastic sheet with a dimpled profile. DELTA®-DRY Rainscreen has a nominal weight of 10.2 pounds per 100 square feet (500 g/m²), and is available in rolls that are 39.4 inches (1.00 m) wide and 50 feet (15.25 m) long. DELTA®-DRY STUCCO & STONE Rainscreen With Mortar Screen has a nominal weight of 11.4 pounds per 100 square feet (555 g/m²) and is available in rolls that are 39.4 inches (1.00 m) wide and 46 feet (14 m) long. The products are available in both an 8-millimeter and an 11-millimeter profile. The DELTA®-DRY STUCCO & STONE Rainscreen With Mortar Screen has a heat-bonded polypropylene fabric layer bonded on the weather side. The weather side of the DELTA®-DRY Rainscreen is marked with a blue stripe.

4.0 INSTALLATION

4.1 General:

Installation of the DELTA®-DRY rainscreen drainage systems must comply with this report, the applicable code and the manufacturer's published installation instructions. The manufacturer's published installation instructions must be available at the jobsite at all times during installation.

For Installation of cement plaster (stucco) or adhered masonry over wood-based sheathing, DELTA®-DRY rainscreen drainage systems are installed after wall framing is completed, over a water-resistive barrier with a water resistance equal to or greater than that of 60-minute Grade D paper, as described in the exceptions to IBC Section 2510.6 and IRC Section R703.7.3 (2012, 2009 and 2006 IRC Section R703.6.3).

For installation with exterior wall systems other than cement plaster (stucco) or adhered masonry, over sheathing complying with the code, DELTA-DRY rainscreen drainage systems are installed after wall framing is completed, over a water-resistive barrier complying with 2018 IBC Section 1403.2 (2015, 2012, 2009 and 2006 IBC Section 1404.2) or IRC Section R703.2.

4.2 DELTA®-DRY Rainscreen:

The roll of DELTA®-DRY Rainscreen is placed approximately 12 inches (305 mm) from the starting corner and is fastened to the sheathing with corrosion-resistant roofing nails or screws spaced at a maximum of 24 inches (610 mm) on center in the field and at a maximum of 12 inches (305 mm) on center along horizontal and vertical edges. The product is placed with the blue stripe facing the weather. Horizontal and vertical edges are butted together with no overlap. The product is then unrolled around the building and fastened, as set forth in the report holder's published installation instructions, at top and bottom sill plates and at framing members.

After installation of the DELTA®-DRY rainscreen, a mortar screen such as building paper is installed over the rainscreen surface. Wire lath and other components of the cement plaster or adhered masonry veneer system must be installed in accordance with the code or the applicable ICC-ES evaluation report.

4.3 DELTA®-DRY STUCCO & STONE Rainscreen With Mortar Screen:

DELTA®-DRY STUCCO & STONE Rainscreen With Mortar Screen must be installed with the fabric facing the exterior. DELTA®-DRY STUCCO & STONE Rainscreen With Mortar

Screen is installed as described in Section 4.2 of this evaluation report except that an additional mortar screen is not required between the rainscreen and the lath.

5.0 CONDITIONS OF USE

The products described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Installation must comply with this report, the manufacturer's published installation instructions and the applicable code. In the event of a conflict between the published installation instructions and this report, this report governs.
- 5.2 Installation is limited to use in Type V-B construction (IBC) and dwellings constructed in accordance with the IRC.
- 5.3 In determining the size and spacing of fasteners used to support the weight of exterior cement plaster or adhered masonry veneer, and to resist negative wind pressure, the thickness of the moisture drainage system must be considered.
- 5.4 Claddings other than cement plaster (stucco) and adhered masonry veneer are outside the scope of this report.
- 5.5 The structural performance of exterior cement plaster or adhered masonry veneer walls installed over the moisture drainage system is outside the scope of this evaluation report.
- 5.6 The DELTA[®]-DRY STUCCO & STONE Rainscreen With Mortar Screen is manufactured under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

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

7.0 IDENTIFICATION

- 7.1 The products described in this report are identified by a label on the container of each roll, and by printing on the product that includes the report holder's name (Dorken Systems Inc.), the city and country of manufacture (Beamsville, Ontario, Canada), the product name, the product size, the date of manufacture, and the evaluation report number (ESR-2987).
- 7.2 The report holder's contact information is the following:

DORKEN SYSTEMS INC.
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BEAMSVILLE, ONTARIO L0R 1B4
CANADA
(905) 563-3255
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ICC-ES Evaluation Report

ESR-2987 CBC and CRC Supplement

Issued May 2019

This report is subject to renewal December 2019.

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A Subsidiary of the International Code Council®

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 77 00—Wall Specialties

REPORT HOLDER:

DORKEN SYSTEMS INC.

EVALUATION SUBJECT:

DELTA®-DRY RAINSCREEN DRAINAGE SYSTEMS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the DELTA®-DRY rainscreen drainage systems, recognized in ICC-ES master evaluation report ESR-2987, have also been evaluated for the code(s) noted below.

Applicable code edition(s):

- 2016 *California Building Code*® (CBC)

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OHSPD) and Division of the State Architects (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2016 *California Residential Code*® (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The DELTA®-DRY rainscreen drainage systems, described in Sections 2.0 through 7.0 of the master evaluation report ESR-2987, comply with CBC Chapter 14, provided the design and installation are in accordance with the 2015 *International Building Code*® (IBC) provisions noted in the master report and the additional requirements of CBC Chapters 14 and 25, as applicable.

2.1.1 OHSPD:

The DELTA®-DRY rainscreen drainage systems, described in Sections 2.0 through 7.0 of the master evaluation report ESR-2987, comply with CBC amended Chapter 14 [OSPHD 1 & 4] or Chapter 14 [OSPHD 2].

2.1.2 DSA:

The DELTA®-DRY rainscreen drainage systems, described in Sections 2.0 through 7.0 of the master evaluation report ESR-2987, comply with CBC amended Chapter 14 [DSA SS & DSA SS/CC].

2.2 CRC:

The DELTA®-DRY rainscreen drainage systems, described in Sections 2.0 through 7.0 of the master evaluation report ESR-2987, comply with CRC Chapter 7, provided the design and installation are in accordance with the 2015 *International Residential Code*® (IRC) provisions noted in the master report and the additional requirements of CRC Chapter 7.

This supplement expires concurrently with the master report, reissued December 2017 and revised May 2019.

ICC-ES Evaluation Report

ESR-2987 FBC Supplement

Issued May 2019

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1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the DELTA®-DRY rainscreen drainage systems, recognized in ICC-ES master evaluation report ESR-2987, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2017 *Florida Building Code—Building*
- 2017 *Florida Building Code—Residential*

2.0 CONCLUSIONS

The DELTA®-DRY rainscreen drainage systems, described in Sections 2.0 through 7.0 of the master evaluation report ESR-2987, comply with the *Florida Building Code—Building* and *Florida Building Code—Residential*, provided the design and installation are in accordance with the 2015 *International Building Code*® provisions noted in the master report subject to the following condition of use:

- Evaluation of the complete wall covering system is outside the scope of this supplement report.

Use of the DELTA®-DRY rainscreen drainage systems for compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* and *Florida Building Code—Residential* has not been evaluated, and is outside the scope of this supplemental report.

For products falling under Florida Rule 9N-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the master report reissued December 2017 and revised May 2019.