ICC-ES Evaluation Report

ESR-2625

Reissued January 1, 2010

This report is subject to re-examination in two years.

www.icc-es.org | (800) 423-6587 | (562) 699-0543 *A Subsidiary of the International Code Council®*

DIVISION: 07—THERMAL AND MOISTURE PROTECTION
Section: 07305—Roofing Felt and Underlayment

REPORT HOLDER:

COSELLA-DORKEN PRODUCTS INC.
4655 DELTA WAY
BEAMSVILLE, ONTARIO L0R 1B4
CANADA
(905) 563-3255
www.cosella-dorken.com

EVALUATION SUBJECT:

DELTA®-ROOF, DELTA®-VENT S, DELTA®-VENT S PLUS, DELTA®-MAXX TITAN, DELTA®-FOXX, AND DELTA®-FOXX PLUS

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2006 *International Building Code®* (IBC)
- 2006 *International Residential Code®* (IRC)

Properties evaluated:

- Physical properties
- Ice barrier

2.0 USES

DELTA®-ROOF, DELTA®-MAXX-TITAN, DELTA®-FOXX, DELTA®-FOXX PLUS, DELTA®-VENT S AND DELTA®-VENT S PLUS are synthetic roofing underlayments for use as alternatives to the ASTM D 226, Type 1 and Type II, roofing underlayment specified in IBC Chapter 15 and IRC Chapter 9.

DELTA®-ROOF and DELTA®-MAXX TITAN may also be used as alternatives to the ice barrier required by IBC Chapter 15 and IRC Chapter 9.

3.0 DESCRIPTION

3.1 DELTA®-ROOF:

DELTA®-ROOF is a five-layer synthetic underlayment consisting of two polypropylene spun fiber (nonwoven) outer layers, two extruded polypropylene film inner layers and a polypropylene woven mesh in the middle. The underlayment has a nominal weight of 4.5 pounds per 100 square feet (220 g/m^2) and is produced in rolls 4.9 feet (1.5 meters) wide and 164 feet (50 meters) long.

3.2 DELTA®-MAXX TITAN:

DELTA®-MAXX TITAN is a three-layer synthetic underlayment consisting of a polyester, nonwoven, needle-punched layer, single-side coated with a polyurethane film, and with a metallic reflective coating placed on the polyurethane film surface. The underlayment has a nominal weight of 3.7 pounds per 100 square feet (182 g/m^2) and is produced in rolls 4.9 feet (1.5 meters) wide and 164 feet (50 meters) long.

3.3 DELTA®-FOXX:

DELTA®-FOXX is a synthetic underlayment consisting of a thermo-bonded polyester, nonwoven layer, coated on one side with an acrylic coating. The underlayment has a nominal weight of 5.5 pounds per 100 square feet (270 g/m^2) and is produced in rolls 4.9 feet (1.5 meters) wide and 164 feet (50 meters) long.

3.4 DELTA®-VENT S:

DELTA®-VENT S is a three-layer synthetic underlayment consisting of polypropylene spun fiber (nonwoven) inner and outer layers and a polypropylene film center layer. The underlayment has a nominal weight of 2.9 pounds per 100 square feet (140 g/m^2) and is produced in rolls 4.9 feet (1.5 meters) wide and 164 feet (50 meters) long.

3.5 DELTA®-FOXX PLUS:

Delta®-Foxx Plus is the same membrane as DELTA® FOXX, described in Section 3.3, except for a self-adhesive strip to aid installation of the membrane. The adhesive strip does not replace mechanical fasteners required by the code for installation.

3.6 DELTA®-VENT S PLUS:

Delta®-Vent S Plus is the same membrane as DELTA®-VENT S, described in Section 3.3, except for a self-adhesive strip to aid installation of the membrane. The adhesive strip does not replace mechanical fasteners required by the code for installation.

4.0 INSTALLATION

Installation of the underlayments must comply with the applicable code, this report and the manufacturer's published installation instructions. The installation instructions must be available at the jobsite at all times during installation.

Prior to application of the underlayment, the deck surface must be free of frost, dust, dirt, loose nails and other protrusions. Damaged sheathing must be replaced. The underlayment must be laid printed side up, with 6-inch

(152 mm) horizontal (head) laps and 8-inch (203 mm) vertical (end) laps for roof slopes between 2:12 and 4:12 (16.67% and 33.33%) or with 4-inch (102 mm) horizontal (head) laps and 6-inch (152 mm) vertical (end) laps for roof slopes greater than 4:12 (33.33%). Overlaps must run with the flow of water in a shingling manner. Flashing, in accordance with the applicable code, must be installed. Flashing around protrusions or metal drip edges must be over the underlayment to prevent water backup.

The underlayment is attached to the roof deck in accordance with IBC Chapter 15 or IRC Chapter 9, as applicable for the roof covering to be placed over the underlayment.

When DELTA®-ROOF or DELTA®-MAXX TITAN is installed in areas of the roof required to have an ice dam barrier under IBC Chapter 15 or IRC Chapter 9, a single layer of the underlayment is applied in sufficient courses to extend from the eave edge to a point at least 24 inches (610 mm) inside the exterior wall line of the building. The roofing underlayment, in the field of the roof, overlaps the ice barrier protection.

When DELTA®-FOXX or Delta®-Vent S is installed in areas of the roof required to have an ice dam barrier under IBC Chapter 15 or IRC Chapter 9, two layers of the underlayment are cemented together with a roofing cement complying with ASTM D 4586 and acceptable to Cosella-Dorken. The underlayment must be applied over the solid substrate in sufficient courses so that the underlayment extends up from the eave edge to a point at least 24 inches (610 mm) inside the exterior wall line.

The minimum roof slope on which the underlayment is installed and the minimum number of layers of underlayment must comply with the applicable requirements set forth in IBC Chapter 15 or IRC Chapter 9, as applicable, based upon the type of roof covering being installed over the underlayment.

Installation of an approved roof covering can proceed immediately following application of the roofing underlayment. The underlayment must be covered by the roof covering within the time period set forth in the manufacturer's published installation instructions.

For reroofing applications, the same procedures apply after removal of the existing shingles and roofing felts to expose the roof deck.

5.0 CONDITIONS OF USE

The roof underlayments 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 applicable code and the manufacturer's published installation instructions. In the event of a conflict between the manufacturer's published installation instructions and this report, this report governs.

5.2 Installation of underlayment is limited to roof slopes of 2:12 (16.7 percent) and greater in accordance with Section 4.0, and installations where the roof covering does not involve hot asphalt or coal tar pitch.

5.3 Installation is limited to structures located in areas where nonclassified roof coverings are permitted.

5.4 The underlayment is manufactured in Herdecke, Germany, under a quality control program with inspections by Quality Auditing Institute (AA-635).

6.0 EVIDENCE SUBMITTED

6.1 Data in accordance with the ICC-ES Acceptance Criteria for Roof Underlayments (AC188), dated July 2007.

6.2 Data in accordance with Section 3.1.2 of the ICC-ES Acceptance Criteria for Roof Underlayments for Use in Severe Climate Areas (AC48), dated October 2005 (corrected July 2009).

7.0 IDENTIFICATION

Each roll of underlayment must be marked with the manufacturer's name (Cosella-Dorken Products Inc.) and address, the name of the product, the name of the inspection agency (Quality Auditing Institute) and the evaluation report number (ESR-2625).