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ESR-3344

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Reissued 05/2015
This report is subject to renewal 05/2017

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
SECTION: 07 30 05—ROOFING FELT AND UNDERLAYMENT

REPORT HOLDER:

CERTAINTEED CORPORATION

**1400 UNION MEETING ROAD
BLUE BELL, PENNSYLVANIA 19422**

EVALUATION SUBJECT:

CERTAINTEED DIAMOND DECK UNDERLAYMENT



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**DIVISION: 07 00 00—THERMAL AND MOISTURE
PROTECTION**
Section: 07 30 05—Roofing Felt and Underlayment

REPORT HOLDER:

CERTAINTEED CORPORATION
1400 UNION MEETING ROAD
BLUE BELL, PENNSYLVANIA 19422
(610) 341-7000
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EVALUATION SUBJECT:**CERTAINTEED DIAMOND DECK UNDERLAYMENT****1.0 EVALUATION SCOPE****Compliance with the following codes:**

- 2012, 2009 and 2006 *International Building Code*® (IBC)
- 2012, 2009 and 2006 *International Residential Code*® (IRC)
- 2013 *Abu Dhabi International Building Code* (ADIBC)[†]

[†]The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

Properties evaluated:

- Physical properties
- Fire classification

2.0 USES

Diamond Deck underlayment is a synthetic underlayment used as an alternative to the ASTM D226, Type I and Type II, roofing underlayments specified in Chapter 15 of the IBC and Chapter 9 of the IRC. The underlayment is also used as a component of a classified roof assembly when installed as described in this report.

3.0 DESCRIPTION

Diamond Deck underlayment consists of a woven base with a layer of nonwoven polymer laminated to the bottom and a non-slip coating on the top. The underlayment has a nominal weight of 4 lb/100 ft² and is produced in rolls 48 inches (1220 mm) wide and 250 feet (76 m) long.

4.0 INSTALLATION**4.1 General:**

Installation of the Diamond Deck underlayment 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.

4.2 Application:

Prior to application of the underlayment, the deck surface must be clean, dry and smooth, and free of dust, dirt, loose nails and other objects. Damaged sheathing must be replaced. The underlayment is laid horizontally (parallel to the eave) with the printed side facing up, with minimum 3-inch (76 mm) horizontal side laps and 6-inch (152 mm) vertical end laps. Horizontal side laps must be overlapped shingle fashion to shed water. Diamond Deck is attached to the roof deck with standard roofing nails having ³/₈-inch-diameter (9.5 mm) heads placed within diamond markings printed on the top surface. If wind or rain is expected or if long-term exposure (longer than two days) is anticipated, low-profile plastic or metal cap nails with 1-inch (25.4 mm) caps must be used. In areas subject to high winds, underlayment fastening must comply with the high-wind attachment requirements specified in IBC Section 1507 or IRC Section R905.

Installation of the roof covering can proceed immediately following the underlayment application. The underlayment must be covered by an approved roof covering within the time set forth in the manufacturer's published installation instructions. For reroofing applications, the same procedures apply after removal of the existing roof covering and roofing felts to expose the roof deck.

4.3 Ice Barrier:

In areas of the roof required to have an ice barrier under the IBC or IRC, a self-adhering polymer modified bitumen sheet complying with ASTM D1970, or an underlayment recognized for use as an ice barrier in an ICC-ES evaluation report, is applied over the solid substrate in sufficient courses such that the underlayment extends up the roof a minimum distance of 24 inches (610 mm) inside the interior wall line of the building. The Diamond Deck underlayment in the field of the roof must overlap the ice barrier with 3-inch (76 mm) horizontal side laps.

4.4 Fire Classification:

The roofing underlayment may be used as a component of a classified roof assembly consisting of Class A or Class C glass fiber mat shingle or Class C asphalt organic shingle complying with the applicable code, when installed in accordance with this report over a minimum ¹⁵/₃₂-inch-thick plywood deck.

Under the 2012, 2009 and 2006 IBC, the underlayment may be used in Class A roof assemblies that include the roof coverings specified in the exceptions to IBC Section 1505.2. Under the 2006 IBC, the underlayment may be used in Class B roof assemblies that include the roof coverings specified in the exception to Section 1505.3.

Under the 2012 and 2009 IRC, the underlayment may be used in Class A roof assemblies that include the roof coverings specified in the exceptions to Section R902.1. Under the 2006 IRC, the underlayment may be used with the Class A roof assemblies that include the roof coverings specified in Section R902.1.

5.0 CONDITIONS OF USE

The Diamond Deck underlayment described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 The installation must comply with this report, the report holder's published installation instructions and the applicable code. In the event of a conflict between this report and the published installation instructions, this report governs.
- 5.2 Installation is limited to roofs with a slope of 2:12 (16.67%) or greater.
- 5.3 Installation is limited to roofs with ventilated attic spaces in accordance with the requirements of the applicable code.

5.4 Installation is limited to use with roof coverings that are mechanically fastened through the underlayment into the sheathing or rafters.

5.5 Installation is limited to use with roof coverings that do not involve hot asphalt or coal-tar pitch.

5.6 The underlayment is recognized for use as a component of classified roof assemblies when installed in accordance with this report.

5.7 The underlayment 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 Roof Underlayments (AC188), dated February 2012.

7.0 IDENTIFICATION

The packaging of each roll of roofing underlayment is labeled with the report holder's name (CertainTeed Corporation) and address, the product name, the installation instructions, the batch number (which includes the date of manufacture), the name of the inspection agency ICC-ES.