



ICC-ES Evaluation Report

Reissued May 2022

ESR-3344

This report is subject to renewal May 2023.

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

REPORT HOLDER:

CERTAINTED LLC

EVALUATION SUBJECT:

CERTAINTED DIAMOND DECK UNDERLAYMENT

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2018, 2015, 2012, and 2009 *International Building Code*® (IBC)
- 2018, 2015, 2012, and 2009 *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 report holder'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 or corrosion-resistant roofing nails having minimum nominal 1-inch-diameter (25.4 mm) plastic or metal caps 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 minimum nominal 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 2018 IBC Section 1507.1.1, 2018 and 2015 IRC Section R905.1.1, 2015, 2012 and 2009 IBC Section 1507 or 2012 and 2009 IRC Section R905, as applicable. Fasteners must be long enough to penetrate into the sheathing a minimum of 3/4 inch (19.1 mm) or through the sheathing, whichever is less.

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 report holder'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.

4.4 Fire Classification:

Under the 2018, 2015, 2012 and 2009 IBC and IRC, 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 felt shingle complying with the applicable code, when installed in accordance with this report over a minimum ¹⁵/₃₂-inch-thick (11.9 mm) plywood deck.

Under the 2018, 2015, 2012 and 2009 IBC, the underlayment may be used in Class A roof assemblies that include the roof coverings specified in Exceptions 1 and 2 to IBC Section 1505.2.

Under the 2018, 2015, 2012 and 2009 IRC, the underlayment may be used in Class A roof assemblies that include the roof coverings specified in Exceptions 1 and 2 to 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 (editorially revised May 2018).

7.0 IDENTIFICATION

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

7.2 The report holder's contact information is the following:

CERTAINTEED LLC
20 MOORES ROAD
MALVERN, PENNSYLVANIA 19355
(610) 893-5400
www.certainteed.com

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION

Section: 07 30 05—Roofing Felt and Underlayment

REPORT HOLDER:

CERTAINTEED LLC

EVALUATION SUBJECT:

CERTAINTEED DIAMOND DECK UNDERLAYMENT

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that CertainTeed Diamond Deck Underlayment, described in ICC-ES evaluation report ESR-3344, has also been evaluated for compliance with the codes editions noted below.

Applicable code editions:

- 2019 *California Building Code* (CBC)

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

- 2019 *California Residential Code* (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The CertainTeed Diamond Deck Underlayment, described in Sections 2.0 through 7.0 of the evaluation report ESR-3344, complies with CBC Chapter 15, provided the design and installation are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapter 15, as applicable.

2.1.1 OSHPD:

The applicable OSHPD Sections of the CBC are beyond the scope of this supplement.

2.1.2 DSA:

The applicable DSA Sections of the CBC are beyond the scope of this supplement.

2.2 CRC:

The CertainTeed Diamond Deck Underlayment, described in Sections 2.0 through 7.0 of the evaluation report ESR-3344, complies with CRC Chapter 9, provided the design and installation are in accordance with the 2018 *International Residential Code*® (IRC) provisions noted in the evaluation report and the additional requirements of CRC Chapter 9, as applicable.

This supplement expires concurrently with the evaluation report, reissued May 2022.