

Code Compliance Research Report CCRR-0606

Issue Date: 05-29-2025 Renewal Date: 01-31-2026

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

REPORT HOLDER: CertainTeed LLC 20 Moores Road Malvern, PA 19355

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REPORT SUBJECT:

CertainTeed Diamond Deck and RoofRunner[™] Synthetic Roofing Underlayments

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2024, 2021, and 2018 International Building Code® (IBC)
- 2024, 2021, and 2018 International Residential Code[®] (IRC)
- 2024 International Wildland-Urban Interface Code (IWUIC)
- 2023 Florida Building Code (FBC) Building and Residential, including High-Velocity-Hurricane Zones (HVHZ) (See Section 9.1)
- 2022 California Building Code (CBC) and 2022 California Residential Code (CRC) (See Section 9.2)

NOTE: This report references the most recent Code editions noted. Section numbers in earlier editions may differ.

1.2 CertainTeed Diamond Deck and RoofRunner[™] Synthetic Roofing Underlayments have been evaluated for the following properties (see Table 1):

- Physical Properties
- Fire Classification
- Ice Barrier

1.3 CertainTeed Diamond Deck and RoofRunner[™] Synthetic Roofing Underlayments have been evaluated for the following uses (see Table 1):

- Under the 2024 IBC and IRC, the underlayment may be used in the field of roofs where ASTM D8257 compliant underlayments are required as specified in IBC Chapter 15 and IRC Chapter 9. Under the 2021 and 2018 Codes, the underlayment may be used as an alternative to the ASTM D226, Type I and Type II, roofing underlayments specified in IBC Chapter 15 and IRC Chapter 9.
- In areas of the roof required by IBC Section 1507 or IRC Section R905 to have an ice barrier as described in Section 4.2 of this report.
- As a component of a classified assembly when installed as described in Section 4.1 of this report
- Under the 2024 IWUIC, Section 504.2, the CertainTeed Diamond Deck and RoofRunner[™] Synthetic Roofing Underlayments may be used on buildings requiring Class 1 ignition-resistant construction in wildland-urban interface areas when installed as part of an assembly described in Table 2 of this report.

2.0 STATEMENT OF COMPLIANCE

CertainTeed Diamond Deck and RoofRunner[™] Synthetic Roofing Underlayments comply with the Codes listed in Section 1.1, for the properties stated in Section 1.2, and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.0.

3.0 DESCRIPTION

Diamond Deck is a mechanically attached synthetic underlayment comprised of a polypropylene woven scrim coated on both sides with a polypropylene non-woven scrim on the exposed side. The underlayment is grey on the exposed side and black on the sheathing side and has an overall weight of 3.69 pounds per 100 square feet. The underlayment is available in rolls of 48 inches wide by 250 feet long.

RoofRunner[™] is a mechanically attached synthetic underlayment comprised of a polypropylene woven scrim coated on both sides with a polypropylene non-woven scrim on the exposed side. The underlayment is black in color and has an overall weight of 2.05 pounds per 100 square feet.



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The underlayment is available in rolls of 48 inches wide by 250 feet long.

4.0 PERFORMANCE CHARACTERISTICS

4.1 Fire Classification: When installed in accordance with the assembly described in Table 2 of this report, the CertainTeed Diamond Deck and RoofRunner[™] Synthetic Roofing Underlayments meet Class A fire classification per ASTM E108. Additionally, the underlayments may be used as follows:

- As a component of a classified roof assembly when specifically recognized as such in a Listing Report approved by the Code official.
- As an alternative to the underlayment specified in the Code for roof coverings permitted under Exceptions 1 -4 in IBC Section 1505.2 and Exceptions 1 - 4 to in IRC Section R902.1.
- Where non-classified roofing is permitted in IBC Section 1505.5.

4.2 Ice Barrier: In areas of the roof required by IBC Section 1507.1.2 or IRC Section R905.1.2 to have an ice barrier, two layers of the roofing underlayment solidly cemented together may be used provided the ice barrier extends up the roof a minimum distance of 24 inches inside the exterior wall line of the building.

4.3 Vapor Permeability: CertainTeed Diamond Deck and RoofRunner[™] Synthetic Roofing Underlayments have a permeance of 0.07 perms, based on testing in accordance with ASTM E96.

5.0 INSTALLATION

5.1 General: CertainTeed Diamond Deck and RoofRunner[™] Synthetic Roofing Underlayments must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

The underlayment may be installed with the roof coverings specified in IBC Table 1507.1.1(1) and IRC Table R905.1.1(1), where ASTM D8257-compliant underlayments are permitted.

The underlayment must be installed in accordance with IBC Table 1507.1.1(2) and IRC Table R905.1.1(2) and fastened in accordance with IBC Table 1507.1.1(3) and IRC Table R905.1.1(3). The underlayment must be laid with the print side up, with laps as required by the applicable Code, evaluation report, or manufacturer's instructions, whichever is more restrictive.

When installed as described in Table 2 of this report, the roof assemblies comply with IWUIC Section 504.2 and may be used on buildings requiring Class 1 ignition-resistant construction in wildland-urban interface areas.

The roof covering may be installed immediately following the underlayment application and the underlayments must be covered within the time designated in the report holder's published installation instructions.

6.0 CONDITIONS OF USE

The underlayments described in this Research 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:

6.1 Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict between the manufacturer's instructions and this report, this report governs.

6.2 Installation is limited to use with approved mechanically attached roof covering systems.

6.3 Installation is limited to roof systems that do not involve hot asphalt or coal-tar-pitch.

6.4 Installation is limited to roofs with a slope of 2:12 (17%) or greater.

6.5 Attic ventilation must be provided in accordance with the applicable Code since there are no requirements to evaluate vapor permeability of the underlayments.

6.6 The underlayments are manufactured under a quality control program with inspections by Intertek Testing Services NA Inc.



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7.0 SUPPORTING EVIDENCE

7.1 Reports of tests in accordance with ASTM D8257 and ASTM E108.

7.2 Data in accordance with ICC-ES Acceptance Criteria for Roof Underlayments (AC188), dated February 2012 (editorially revised December 2015).

7.3 Intertek Listing Report "<u>CertainTeed RoofRunner™ &</u> <u>DiamondDeck Synthetic Roofing Underlayments</u>".

8.0 IDENTIFICATION

The underlayments are imprinted with the product name, the company name, the Intertek Mark, and the Code Compliance Research Report number (CCRR-0606). Each roll of the product is also labeled with product name, company name, and installation instructions.

9.0 OTHER CODES

9.1 Florida Building Code: The CertainTeed Diamond Deck and RoofRunner[™] Synthetic Roofing Underlayments, described in Sections 2.0 through 7.0 of this Research Report, comply with the *Florida Building Code – Building* and *Florida Building Code – Residential*, for the editions indicated in Section 1.1 of this report, subject to the following conditions:

9.1.1 For Use Outside HVHZ: The underlayment may be installed with the roof coverings specified in FBC (Building) Table 1507.1.1.1 and FBC (Residential) Table R905.1.1.1, where ASTM D8257-compliant underlayments are permitted. The underlayment must be installed in accordance with the provisions of FBC (Building) Section 1507 and FBC (Residential) R905.

When installed as described in Table 2 of this report, the roofing assembly meets Class A fire classification per ASTM E108. Additionally, the underlayment may be used as follows:

- As a component of a classified roof assembly when specifically recognized as such in a Listing Report approved by the Code official.
- As an alternative to the underlayment specified in the Code for roof coverings permitted under Exceptions 1 -4 to FBC (Building) Section 1505.2 and Exceptions 1 - 4 to FBC (Residential) Section R902.1.

• Where non-classified roofing is permitted in FBC (Building) Section 1505.5.

9.1.2 For Use Inside HVHZ: The underlayment may be installed with the roof coverings specified in FBC (Building) Table 1518.2.1, where ASTM D8257-compliant underlayments are permitted. The underlayment must be installed in accordance with the provisions of FBC (Building) Section 1518. Evaluation for use with discontinuous roof tile systems in HVHZ is outside the scope of this report.

When installed as described in Table 2 of this report, the roofing assembly may be used where Class A fire classification is required in FBC (Building) Section 1516.2.1. Additionally, the underlayment may be used with roof coverings permitted under the Exception to FBC (Building) Section 1516.2.1.

Intertek is an approved evaluation entity and quality assurance entity pursuant to Florida Statute 553.842 – *Product Evaluation and Approval.*

9.2 California Building Code and California Residential Code:

9.2.1 Scope of the Evaluation: The CertainTeed Diamond Deck and RoofRunner[™] Synthetic Roofing Underlayments were evaluated for compliance with the 2022 *California Building Code* and 2022 *California Residential Code*.

9.2.2 Conclusion: The CertainTeed Diamond Deck and RoofRunner[™] Synthetic Roofing Underlayments described in Section 2.0 through 7.0 of this report comply with the 2022 *California Building Code* and 2022 *California Residential Code*, including use in the exterior design and construction of buildings located within the Wildland-Urban Interface Fire Area outlined under *California Building Code* Section 705A and *California Residential Code* Section R337.

10.0 CODE COMPLIANCE RESEARCH REPORT USE

10.1 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.



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10.2 Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

10.3 Reference to the <u>https://bpdirectory.intertek.com</u> is recommended to ascertain the current version and status of this report.

TABLE 1 – PROPERTIES EVALUATED

PROPERTY	2024 IBC SECTION	2024 IRC SECTION	2023 FBC (BUILDING)	2023 FBC (RESIDENTIAL)	2022 CALIFORNIA BUILDING CODE SECTION	2022 CALIFORNIA RESIDENTIAL CODE SECTION	2024 IWUIC SECTION
Physical Properties	1506 and 1507	R904 and R905	1507 and 1518.2	R904 and R905	1506 and 1507	R904 and R905	-
Fire Classification	1505	R902.1	1505, 1516.2	R902	1505 705A	R902.1 R337.5	504.2
Ice Barrier	1507.1.2	R905.1.2	N/A	N/A	1507	R905	-

NOTE: Section numbers may be different for earlier versions of the Codes.

TABLE 2 – FIRE CLASSIFICATION

CLASSIFICATION AND SLOPE	DECK	UNDERLAYMENT	ROOF COVERING
Class A 2:12 or greater	Minimum nominal 15/32 in. thick Code Compliant exterior grade plywood	A single layer of CertainTeed Diamond Deck and RoofRunner™ Synthetic Roofing Underlayments mechanically fastened to the plywood sheathing every 12 inches oc in the field and on the perimeter using plastic cap nails	Asphalt shingles Listed per ASTM D3462 with a minimum weight of 190 pounds per 100 square feet installed per manufacturer's installation instructions

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