NEMO|etc.
Certificate of Authorization #32455
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ENGINEER | EVALUATE | TEST | CONSULT | CERTIFY

EVALUATION REPORT

CertainTeed Corporation
20 Moores Road
Malvern, PA 19355
(610) 651-5847

Evaluation Report C40710.06.12-R3
FL15692-R3
Date of Issuance: 06/16/2012
Revision 3: 03/19/2018

SCOPE:
This Evaluation Report is issued under **Rule 61G20-3** and the applicable rules and regulations governing the use of construction materials in the State of Florida. The documentation submitted has been reviewed by Robert Nieminen, P.E. for use of the product under the Florida Building Code and Florida Building Code, Residential Volume. The products described herein have been evaluated for compliance with the **6th Edition (2017) Florida Building Code** sections noted herein.

DESCRIPTION: CertainTeed DiamondDeck® High Performance Synthetic Underlayment

LABELING: Labeling shall be in accordance with the requirements of the Accredited Quality Assurance Agency noted herein.

CONTINUED COMPLIANCE: This Evaluation Report is valid until such time as the named product(s) changes, the referenced Quality Assurance documentation changes, or provisions of the Code that relate to the product change. Acceptance of this Evaluation Report by the named client constitutes agreement to notify Robert Nieminen, P.E. of any changes to the product(s), the Quality Assurance or the production facility location(s). NEMO|etc. requires a complete review of this Evaluation Report relative to updated Code requirements with each Code Cycle.

ADVERTISEMENT: The Evaluation Report number preceded by the words "NEMO|etc. Evaluated" may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, then it shall be done in its entirety.

INSPECTION: Upon request, a copy of this entire Evaluation Report shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This Evaluation Report consists of pages 1 through 4.

Prepared by:

Robert J.M. Nieminen, P.E.
Florida Registration No. 59166, Florida DCA ANE1983

The facsimile seal appearing was authorized by Robert Nieminen, P.E. on 03/19/2018. This does not serve as an electronically signed document.

CERTIFICATION OF INDEPENDENCE:

1. NEMO ETC, LLC does not have, nor does it intend to acquire or will it acquire, a financial interest in any company manufacturing or distributing products it evaluates.
2. NEMO ETC, LLC is not owned, operated or controlled by any company manufacturing or distributing products it evaluates.
3. Robert Nieminen, P.E. does not have nor will acquire, a financial interest in any company manufacturing or distributing products for which the evaluation reports are being issued.
4. Robert Nieminen, P.E. does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.
5. This is a building code evaluation. Neither NEMO|etc. nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

ROOFING COMPONENT EVALUATION:

1. SCOPE:

Product Category: Roofing
Sub-Category: Underlayment
Compliance Statement: **CertainTeed DiamondDeck® High Performance Synthetic Underlayment**, as produced by **CertainTeed Corporation**, has demonstrated compliance with the following sections of the **6th Edition (2017) Florida Building Code** through testing in accordance with applicable sections the following Standards. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

2. STANDARDS:

Section	Property	Standard	Year
1507.1.1, R905.1.1 Exception	Unrolling, Breaking Strength, Pliability	ASTM D226	2009
1507.1.1, R905.1.1 Exception	Tear strength	ASTM D1970	2015
TAS 110	Accelerated Weathering	ASTM D4798	2011

3. REFERENCES:

Entity	Examination	Reference	Date
ERD (TST6049)	Physical Properties	C30280.12.09	12/11/2009
ERD (TST6049)	Physical Properties	C30280.12.09-R2	08/20/2010
ERD (TST6049)	Tear strength	CTR-SC16080.17	07/31/2017
UL, LLC. (QUA9625)	Quality Control	Service Confirmation	Exp. 03/09/2020

4. PRODUCT DESCRIPTION:

4.1 **DiamondDeck®** is a scrim-reinforced, polymer-based roof underlayment; meets FBC 1507.1.1 & R905.1.1 (Exception).

5. LIMITATIONS:

5.1 This is a building code evaluation. Neither NEMO ETC, LLC nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

5.2 This Evaluation Report is not for use in FBC HVHZ jurisdictions.

5.3 Fire Classification is not part of this report; refer to current Approved Roofing Materials Directory or test report from accredited testing agency for fire ratings of this product.

5.4 **DiamondDeck®** may be used with any prepared roof cover where the product is specifically referenced within FBC approval documents. If not listed, a request may be made to the Authority Having Jurisdiction for approval based on this evaluation combined with supporting data for the prepared roof covering.

5.5 Allowable Roof Covers:

Table 1: Roof Cover Options

Underlayment	Asphalt Shingles	Nail-On Tile	Foam-On Tile	Metal	Wood Shakes & Shingles	Slate
DiamondDeck®	Yes	No	No	Yes	Yes	Yes

5.6 Exposure Limitations:

DiamondDeck® shall not be left exposed for longer than 180-days after installation. Refer to installation instructions specific to anticipated exposure in **Section 6**.

6. INSTALLATION:

6.1 **DiamondDeck®** shall be installed in accordance with **CertainTeed Corporation** published installation requirements subject to the Limitations set forth in Section 5 herein and the specifics noted below.

6.2 Shall be installed in compliance with the requirements for **ASTM D226, Type I or II** underlayment in **FBC Table 1507.1.1 or R905.1.1** for the type of prepared roof covering to be installed, taking into account the wider sheet-width for double-layer applications.

6.3 Re-fasten any loose decking panels, and check for protruding nail heads. Sweep the substrate thoroughly to remove any dust and debris prior to application.

6.4 Consult **CertainTeed** published recommendations for the installation of a leak barrier of ASTM D1970, such as **CertainTeed WinterGuard (FL11288)**, or equal holding Florida Statewide Product Approval at vulnerable leak areas.

6.5 Single Layer; Roof Slope > 4:12:

For slopes 4:12 (18.4°) or greater: **DiamondDeck®** shall be laid horizontally, parallel to the eave with the printed side up, flat and unwrinked and have minimum 3-inch side (horizontal) laps and minimum 6-inch end (vertical) laps. Side (horizontal) laps shall run with the flow of water in a shingling manner. End (vertical) laps shall be offset from course to course not less than 3 feet.

6.6 Double Layer; 2:12 < Roof Slope < 4:12:

For slopes 2:12 (9.4°) to <4:12 (18.4°): **DiamondDeck®** shall be applied in a double coverage method, flat and unwrinkled. Begin by applying a 24-inch wide starter-strip of **DiamondDeck®** along the eaves. Then place a full-width sheet over the starter, with the lower edge flush to the starter's lower edge. Apply succeeding 48-inch wide courses up the roof slope, overlapping each previous course a minimum of 20-inches in a "shingle fashion" with minimum 12-inch end (vertical) laps. End (vertical) laps shall be offset from course to course not less than 3 feet.

6.7 Where laps or joints require sealant or adhesive, use high quality asphalt roofing cement meeting ASTM D4586, Type II or cements/caulks based on butyl rubber or urethane. CertainTeed recommends sealing all laps and joints where the underlayment will be exposed to wind-driven rain.

6.8 Attachment:

Code Reference: The Exception statement in FBC 1507.1.1 and FBC R905.1.1 requires use of metal cap nails where the ultimate design wind speed, Vult, equals or exceeds 150 mph.

Do not use staples. Ensure fasteners are installed at 90 degree angle to the deck with flush contact between the cap and the upper surface of the underlayment. Fasteners shall be of sufficient length to penetrate through the underside of plywood or OSB decks, or minimum ¾-inch embedment into dimensional lumber / tongue-and-grove wood decks.

Short-term exposure (< 2 days): When the finished roofing will be installed within two days of underlayment application and high winds are not forecast, corrosion-resistant or stainless steel roofing nails with 3/8-inch diameter heads may be used. Attach the underlayment by nailing a fastener through each diamond printed on the underlayment and tight to the surface. Proper fastener spacing is 15-inch o.c. vertically and 12-inch o.c. horizontally (parallel to eaves). On vertical side/end laps install 8 fasteners equally spaced at 6-inch o.c. centered in the lap to hold the underlayment in place. If wind or rain is expected prior to finish roofing application, use 1-inch diameter plastic or steel cap nails, as below.

Long-term exposure (> 2 days to max. 180-days): When anticipated exposure time may exceed two days, use low-profile plastic or steel cap nails with 1-inch diameter heads to fasten in place. Attach the underlayment by nailing a fastener through each diamond printed on the underlayment and tight to the surface, as described above.

7. BUILDING PERMIT REQUIREMENTS:

As required by the Building Official or Authority Having Jurisdiction in order to properly evaluate the installation of this product.

8. MANUFACTURING PLANTS:

Contact the noted QA agency for information on product locations covered for **F.A.C. 61G20-3** QA requirements. The following plants have qualified products under their respective physical properties specifications.

Plant	Specification	Product(s)
Hangzhou, China	FBC 1507.1.1 (Exception)	DiamondDeck®

9. QUALITY ASSURANCE ENTITY:

UL, LLC. – QUA9625; (414) 248-6409; karen.buchmann@ul.com

- END OF EVALUATION REPORT -