



**NEMO|etc.**

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ENGINEER

EVALUATE

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**EVALUATION REPORT**

**CertainTeed, LLC**  
20 Moores Road  
Malvern, PA 19355  
**(610) 893-5400**

**Evaluation Report C40710.06.12-R5**  
**FL15692-R5**  
**Date of Issuance: 06/16/2012**  
**Revision 5: 07/24/2020**

**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. The product described herein has been evaluated for compliance with the **7<sup>th</sup> Edition (2020) Florida Building Code** sections noted herein.

**DESCRIPTION: DiamondDeck®**

**LABELING:** Labeling shall be in accordance with the requirements of the Accredited Quality Assurance Agency noted herein and FBC 1507.1.1.

**CONTINUED COMPLIANCE:** This Evaluation Report is valid until such time as the named product(s) changes, the referenced Quality Assurance or production facility location(s) changes, or Code provisions that relate to the product(s) change. Acceptance of our Evaluation Reports by the named client constitutes agreement to notify NEMO ETC, LLC of any changes to the product(s), the Quality Assurance or the production facility location(s). NEMO ETC, LLC requires a complete review of its Evaluation Report relative to updated Code requirements with each Code Cycle.

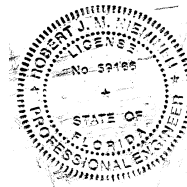
**ADVERTISEMENT:** The Florida Product Approval Number (FL#) preceded by the words "NEMO|etc. Evaluated" may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, then it shall be done in its entirety.

**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 07/24/2020. 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, 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.

**ROOFING COMPONENT EVALUATION:**
**1. SCOPE:**
**Product Category:** Roofing

**Sub-Category:** Underlayment

**Compliance Statement:** **DiamondDeck®**, as produced by **CertainTeed, LLC**, has demonstrated compliance with the following sections of the **7<sup>th</sup> Edition (2020) Florida Building Code** through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

**2. STANDARDS:**

<u>Code Section</u>	<u>Property</u>	<u>Standard</u>	<u>Year</u>
1507.1.1.1(2&3, Exception), 1507.1.1.1(5) / R905.1.1.1(2&3, Exception), R905.1.1.1(5)	Tear strength	ASTM D4533	2015
1507.1.1.1(2&3, Exception), 1507.1.1.1(5) / R905.1.1.1(2&3, Exception), R905.1.1.1(5)	Tensile strength	ASTM D5035	2011
1507.1.1.1(5) / R905.1.1.1(5)	Liquid water transmission	ASTM D4869	2016
1523.6.5.2.9	Rupture (pull-through)	TAS 117(B)	1995
TAS 110	Accelerated Weathering	ASTM D4798	2011

**3. REFERENCES:**

<u>Entity</u>	<u>Examination</u>	<u>Reference</u>	<u>Date</u>
ERD (TST6049)	ASTM D4869, D5035	C30280.12.09	12/11/2009
ERD (TST6049)	ASTM D4798	C30280.12.09-R2	08/20/2010
ERD (TST6049)	ASTM D4533	CTR-SC16080.10.17	10/25/2017
NEMO (TST6049)	TAS 117(B)	4i-CTR-19-SSCRT-01.A	04/10/2019
UL, LLC. (QUA9625)	Quality Control	Service Confirmation	11/13/2019

**4. PRODUCT DESCRIPTION:**

	<u>Product</u>	<u>Material Standard</u>	<u>Plant(s)</u>	<u>Description</u>
4.1	DiamondDeck®	1507.1.1.1(2&3, Exception), 1507.1.1.1(5) / R905.1.1.1(2&3, Exception), R905.1.1.1(5)	Hangzhou, China	scrim-reinforced, polymer-based roof underlayment

**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 High Velocity Hurricane Zone jurisdictions (i.e., Broward and Miami-Dade Counties).
- 5.3 This Evaluation Report pertains to above-deck roof components. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction.
- 5.4 This Evaluation Report does not include evaluation of fire classification. Refer to **FBC 1505** for requirements and limitations regarding roof assembly fire classification. Refer to **FBC 2603** for requirements and limitations concerning the use of foam plastic insulation.
- 5.5 **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.

**5.6 Allowable Roof Covers:**

TABLE 1: ROOF COVER OPTIONS									
Underlayment	Asphalt Shingles (1507.2)	Clay and Concrete Tile (1507.3)		Metal		Slate or Slate-Type Shingles (1507.7)	Wood		Photo-voltaic Shingles (1507.17)
		Mechanical Attach	Adhesive-Set	Panels (1507.4)	Shingles (1507.5)		Shingles (1507.8)	Shakes (1507.9)	
DiamondDeck®	Yes	No	No	Yes	Yes	Yes	No	No	No

**5.7 Exposure Limitations:**

TABLE 2: EXPOSURE LIMITATIONS	
Underlayment	Maximum Exposure (days)
DiamondDeck®	180

**6. INSTALLATION:**

- 6.1 **DiamondDeck®** shall be installed in accordance with **CertainTeed** installation instructions subject to the Limitations set forth in Section 5 herein and the specifics noted below.
- 6.2 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, and primed the substrate (if applicable).

**6.3 DiamondDeck®**

6.3.1 Shall be installed in compliance with requirements for a synthetic underlayment in **FBC 1507.1.1.1(2, Exception), 1507.1.1.1(3, Exception) or 1507.1.1.1(5)** or **FBC Residential R905.1.1.1(2, Exception), R905.1.1.1(3, Exception) or R905.1.1.1(5)** for the type of prepared roof covering to be installed, and the manufacturer's installation instructions. With the exception of Section 6.3.3 herein, these FBC requirements take precedence over the manufacturer's installation instructions.

**6.3.2 Fasteners:**

Minimum fasteners shall be corrosion resistant, ring-shank cap nails shall be as set forth in **FBC 1507.1.1.1 or 1507.1.1.3** or **FBC Residential R905.1.1.1 or R905.1.1.3**.

**6.3.3 Attachment:** Minimum attachment is noted in Table 3.

Note: These patterns have been determined through testing and analysis as meeting the intent of those set forth in **FBC 1507.1.1.1 or 1507.1.1.3** or **FBC Residential R905.1.1.1 or R905.1.1.3**, regardless of whether plastic cap nails or metal cap nails are utilized. Acceptance of this alternate attachment pattern is at the discretion of the Authority Having Jurisdiction, in advance of roof cover installation.

TABLE 3: MINIMUM ATTACHMENT: DIAMONDECK®	
Metal or Plastic Cap Nails	Battens
At the diamond-printed pattern (◆), which translates to 15-inch o.c. vertically and 12-inch o.c. horizontally. On vertical end-laps install 8 fasteners equally spaced 6-inch o.c. centered in the lap.	When batten systems are to be installed atop the underlayment, the underlayment need only be attached at horizontal side-laps and vertical end-laps prior to batten installation

6.3.4 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.

**7. BUILDING PERMIT REQUIREMENTS:**

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

**8. MANUFACTURING PLANTS:**

Contact the named QA entity for manufacturing facilities covered by **F.A.C. Rule 61G20-3** QA requirements. Refer to Section 4 herein for products and production locations having met codified material standards.

**9. QUALITY ASSURANCE ENTITY:**

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

- END OF EVALUATION REPORT -