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ENGINEER

EVALUATE

TEST

CONSULT

P.E. EVALUATION REPORT (PEER)

Sentry Building Innovations

1209 Orange Street, Wilmington,
New Castle, DE 19801
(843) 735-1773

PEER-ACTSBI-001.B

FL21895-R7 (HVHZ)

Date of Issuance: 10/02/2023

SCOPE:

This P.E. Evaluation Report (henceforth 'PEER') 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 products described herein have been evaluated for compliance with the **8th Edition (2023) Florida Building Code, High Velocity Hurricane Zone** [sections noted herein](#).

DESCRIPTION: Roofnado Roof Underlayments (HVHZ)

LABELING: Labeling shall be in accordance with the requirements of the Accredited Quality Assurance Agency noted herein and [FBC 1518.2](#).

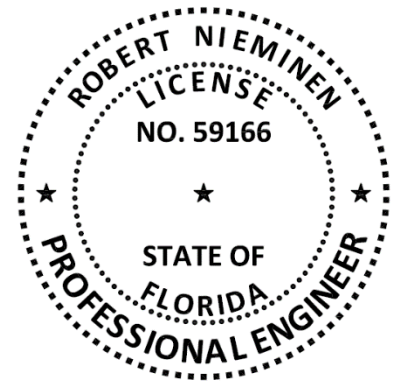
CONTINUED COMPLIANCE: This PEER is valid until such time as the named product(s) changes, the referenced Quality Assurance or production facility location(s) changes, or Code provisions that relate to the product(s) change. Acceptance of our PEERs by the named client constitutes agreement to notify NEMO 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 PEER relative to updated Code requirements with each Code Cycle.

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

INSPECTION: Upon request, a copy of this entire PEER 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 PEER consists of pages 1 through 6.

Prepared by:



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 PEERs 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 PEER, 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
Product Approval Method: Method 1, Option D – Codified Material, Evaluation by Engineer
Compliance Statement: Roofnado Roof Underlayments, as produced by Sentry Building Innovations, have demonstrated compliance with the following sections of the 8th Edition (2023) Florida Building Code, High Velocity Hurricane Zone through testing in accordance with the following Standards. Compliance is subject to the [Installation Requirements](#) and [Limitations of Use](#) set forth herein.

2. STANDARDS:

| SECTION | PROPERTY | STANDARD | YEAR |
|-----------------|------------------------|------------|------|
| TAS 110, 1518.2 | Material standard | ASTM D8257 | 2020 |
| TAS 110, 1518.2 | Material standard | ASTM D1970 | 2017 |
| TAS 110 | Accelerated Weathering | ASTM D4798 | 2011 |

3. REFERENCES:

| ENTITY | EXAMINATION | REFERENCE | DATE |
|-------------------|-------------------|-------------------------|------------|
| NEMO | PEER | PEER-ACT-001.B-R2 | 10/02/2023 |
| NEMO | Traceability | SPE | 09/28/2023 |
| ICC NTA (QUA3504) | Quality Assurance | Inspection Report (ML1) | 05/25/2023 |
| ICC NTA (QUA3504) | Quality Assurance | Inspection Report (ML3) | 06/12/2023 |
| ICC NTA (QUA3504) | Quality Assurance | Inspection Report (ML2) | 07/20/2023 |

4. PRODUCT DESCRIPTION:

| TABLE 1: EVALUATED UNDERLAYMENTS | | | |
|----------------------------------|---------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PRODUCT | MATERIAL STANDARD | PLANT(S) ⁱ | DESCRIPTION |
| Roofnado™ AnchorDeck™ | ASTM D8257 ⁱⁱ | ML1 | Synthetic polymer-based scrim-reinforced underlayment, consisting of woven polyolefin base with a layer of nonwoven polyolefin sheet and a polymer coating on the back side, with a nominal unit weight of 2.25 lbs/square. |
| Roofnado™ StormTread™ | ASTM D8257 ⁱⁱ | ML1 | Synthetic polymer-based scrim-reinforced underlayment, consisting of woven polyolefin base with a layer of nonwoven polyolefin sheet and a polymer coating on the back side, with a nominal unit weight of 3.80 lbs/square. |
| Roofnado™ ShingleLock™ | ASTM D8257 ⁱⁱ | ML1 | Synthetic polymer-based scrim-reinforced underlayment, consisting of woven polyolefin base with a layer of nonwoven polyolefin sheet and a polymer coating on the back side, with a nominal unit weight of 3.80 lbs/square. |
| Roofnado™ StormTread™ XW | ASTM D8257 ⁱⁱ | ML1 | Synthetic polymer-based scrim-reinforced underlayment, consisting of woven polyolefin base with a layer of nonwoven polyolefin sheet and a polymer coating on the back side, with a nominal unit weight of 3.40 lbs/square. |
| Roofnado™ LapLock™ PSU | ASTM D1970 ⁱⁱⁱ | ML2 | Nominal 50-mil, self-adhering, multi-layered roof underlayment composed of a synthetic top facer bonded to a polymer modified bituminous layer and release film |
| Roofnado™ AnchorDeck™ PSU | ASTM D1970 ⁱⁱⁱ | ML3 | Nominal 40-mil, self-adhering, multi-layered roof underlayment composed of a synthetic top facer bonded to a polymer modified bituminous layer and release film |

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 PEER, or previous versions thereof, is/was used for permitting or design guidance. PEERs are not to be construed as representing any attributes not specifically listed, nor are PEERs to be construed as an endorsement of the subject, or a recommendation for its use. There is no warranty by NEMO ETC, LLC or Robert Nieminen, P.E., express or implied, as to any finding or other matter in this PEER, or as to any product covered by the PEER.
- 5.2 This PEER is exclusively for use in FBC High Velocity Hurricane Zone jurisdictions, as defined in FBC Chapter 2 (Broward and Miami-Dade Counties).
- 5.3 This PEER 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 PEER does not include evaluation of fire classification. Refer to **FBC HVHZ 1516** 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 **Roofnado Roof Underlayments** 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 PEER combined with supporting data for the prepared roof covering.

5.6 Allowable Roof Covers:

| TABLE 2: ROOF COVER OPTIONS | | | | | | |
|-----------------------------|--------------------------|-------------------------------|--------------|--------------------------|------------------------------|-------------------------|
| <i>FBC HVHZ:</i> | <i>RAS 115, 1518.2.1</i> | <i>RAS 118, 119 & 120</i> | | <i>RAS 133, 1518.2.1</i> | <i>1518.2.1</i> | <i>RAS 130, 1518.10</i> |
| UNDERLAYMENT | ASPHALT SHINGLES | CLAY AND CONCRETE TILE | | METAL PANELS OR SHINGLES | SLATE OR SLATE-TYPE SHINGLES | WOOD SHINGLES OR SHAKES |
| | | MECH. ATTACH | ADHESIVE-SET | | | |
| Roofnado AnchorDeck | Yes | No | No | Yes (residential) | Yes | Yes |
| Roofnado StormTread | Yes | No | No | Yes | Yes | Yes |
| Roofnado ShingleLock | Yes | No | No | Yes | Yes | Yes |
| Roofnado StormTread XW | Yes | No | No | Yes | Yes | Yes |
| Roofnado LapLock PSU | Yes | No | No | Yes | Yes | Yes (per RAS 130) |
| Roofnado AnchorDeck PSU | Yes | No | No | Yes | Yes | Yes (per RAS 130) |

- 5.6.1 In addition to the codified roof cover options noted above, allowable roof covers include synthetic or composite shingles, slate or shakes holding current [Florida HVHZ Product Approval](#) or [Miami-Dade NOA](#).

5.7 **Allowable Substrates:**

| TABLE 3: ALLOWABLE SUBSTRATE OPTIONS FOR ADHERED UNDERLAYMENTS | | | | |
|----------------------------------------------------------------|---------------|------------------------------------|---------------------|-------------------------|
| UNDERLAYMENT | APPLICATION | SUBSTRATES (DESIGNED TO MEET CODE) | | |
| | | TYPE | PRIMER | MATERIAL(S) |
| Roofnado LapLock PSU | self-adhering | Deck / sheathing | (Optional) ASTM D41 | Plywood |
| | | Base Sheet | None | ASTM D226, Type II felt |
| | | Base Ply | None | Roofnado AnchorDeck PSU |
| Roofnado AnchorDeck PSU | self-adhering | Deck / sheathing | (Optional) ASTM D41 | Plywood |
| | | Base Sheet | None | ASTM D226, Type II felt |

5.8 **Attachment Limitations:**

5.8.1 Refer to [Section 6](#) for codified prescriptive systems.

5.9 **Exposure Limitations:**

| TABLE 4: EXPOSURE LIMITATIONS | | |
|------------------------------------------------------------------------------------------|-----------------------------------------|-------------------------|
| UNDERLAYMENT | PREPARED ROOF COVER INSTALLATION TYPE | MAXIMUM EXPOSURE (DAYS) |
| Roofnado AnchorDeck, Roofnado StormTread, Roofnado ShingleLock or Roofnado StormTread XW | Mechanically attached | 90 |
| Roofnado LapLock PSU | Any type (per Table 2) | 90 |
| Roofnado AnchorDeck PSU | Mechanically attached | 90 |

5.10 All components in the roof assembly shall have quality assurance audit in accordance with **F.A.C. Rule 61G20-3**. Refer to the Product Approval of the component manufacturer for components mentioned herein that are produced by a Product Manufacturer other than the report holder on [Page 1](#) of this PEER.

6. INSTALLATION:

6.1 **Roofnado Roof Underlayments** shall be installed in accordance with **Sentry Building Innovations** installation instructions subject to the [Limitations of Use](#) herein and the specifics noted below.

6.1.1 Consult Sentry Building Innovations requirements for back-nailing at pitch of 2:12 or greater.

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 prime the substrate (if applicable).

6.3 Refer to Section 6.4 for underlayments having prescriptive codified minimum attachment.

6.4 **Assemblies with Prescriptive Minimum Attachment:**

| | | |
|-------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 6.4.1 | DECK TYPE 1: | Wood, Non-Insulated |
| | DECK DESCRIPTION: | Min. 19/32-inch plywood or wood plank |
| | SYSTEM TYPE E-1: | Underlayment mechanically fastened to deck |
| | UNDERLAYMENT: | Two (2) layers of Roofnado AnchorDeck, Roofnado StormTread, Roofnado ShingleLock or Roofnado StormTread XW in accordance with FBC HVHZ 1518.2.1(3). |
| | FASTENING: | Grid pattern of 12-inches between the overlaps, with 6-inch spacing at the overlaps, in accordance with FBC HVHZ 1518.2.1(3): |
| | SURFACING: | FBC HVHZ Approved asphalt shingles, metal roof panels or metal shingles, slate or slate type shingles. |

| | | |
|-------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6.4.2 | DECK TYPE 1: | Wood, Non-Insulated |
| | DECK DESCRIPTION: | Min. 19/32-inch plywood |
| | SYSTEM TYPE E-1: | Self-adhering strips to plywood joints; underlayment mechanically fastened to deck |
| | SECONDARY WATER BARRIER: | Min. 3¾-inch wide strips of Roofnado LapLock PSU or Roofnado AnchorDeck PSU self-adhered over joints of the plywood roof deck prior to installation of subsequent layer(s) in accordance with FBC HVHZ 1518.2.1(2). Do not overlap end-joints or T-joints. All end-joints and T-joints shall be butted firmly side by side, flush with each other but not overlapped. |
| | UNDERLAYMENT: | Roofnado AnchorDeck, Roofnado StormTread, Roofnado ShingleLock or Roofnado StormTread XW in accordance with FBC HVHZ Table 1518.2.1. |
| | FASTENING: | Grid pattern of 12-inches between the overlaps, with 6-inch spacing at the overlaps, in accordance with FBC HVHZ Table 1518.2.1. |
| | SURFACING: | FBC HVHZ Approved metal shingles, slate, slate type shingles, wood shingles or wood shakes. |
| 6.4.3 | DECK TYPE 1: | Wood, Non-Insulated |
| | DECK DESCRIPTION: | Min. 19/32-inch plywood |
| | SYSTEM TYPE E-2: | Optional self-adhering strips to plywood joints; base sheet mechanically fastened to deck; optional base ply adhered to base sheet; underlayment adhered to base ply or base sheet |
| | SECONDARY WATER BARRIER: | (Optional) Min. 3¾-inch wide strips of Roofnado LapLock PSU or Roofnado AnchorDeck PSU self-adhered over joints of the plywood roof deck prior to installation of subsequent layer(s) in accordance with FBC HVHZ 1518.2.1(2). Do not overlap end-joints or T-joints. All end-joints and T-joints shall be butted firmly side by side, flush with each other but not overlapped. |
| | BASE SHEET: | FBC HVHZ Approved, ASTM D226, Type II felt or ASTM D4869, Type III or IV felt in accordance with FBC HVHZ Table 1518.2.1. |
| | FASTENING: | Grid pattern of 12-inches between the overlaps, with 6-inch spacing at the overlaps, in accordance with FBC HVHZ Table 1518.2.1. |
| | BASE PLY: | (Optional) Roofnado AnchorDeck PSU, self-adhered |
| | UNDERLAYMENT: | Roofnado LapLock PSU or Roofnado AnchorDeck PSU, self-adhered |
| | SURFACING: | FBC HVHZ Approved asphalt shingles, metal roof panels or metal shingles, slate or slate type shingles. |
| 6.4.4 | DECK TYPE 1: | Wood, Non-Insulated |
| | DECK DESCRIPTION: | Min. 19/32-inch plywood |
| | SYSTEM TYPE F: | Optional base ply adhered to deck; underlayment adhered to base ply or deck |
| | BASE PLY: | (Optional) Roofnado AnchorDeck PSU, self-adhered |
| | UNDERLAYMENT: | Roofnado LapLock PSU or Roofnado AnchorDeck PSU, self-adhered in accordance with FBC HVHZ 1518.2.1(1). |
| | SURFACING: | FBC HVHZ Approved asphalt shingles, metal roof panels or metal shingles, slate or slate type shingles. |

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 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:

[ICC-NTA \(QUA3504\)](#), (574) 773-7975, vbrown@icc-nta.org

- END OF PEER -

ⁱ Building officials, Designers of Record and other Authorities Having Jurisdiction may contact info@nemoetc.com to obtain manufacturing location information for products evaluated herein.

ⁱⁱ Agreement between purchaser and seller, as set forth in Section 4.3, Note 1 of ASTM D8257-20, should be established as to slip resistance of Roofnado AnchorDeck, Roofnado StormTread, Roofnado ShingleLock and Roofnado StormTread XW.

ⁱⁱⁱ Agreement between purchaser and seller, as set forth in Section 4.3, Note 1 of ASTM D1970-17, should be established as to slip resistance of Roofnado LapLock PSU and Roofnado AnchorDeck PSU.