



**NEMO|etc.**

Certificate of Authorization #32455  
353 Christian Street, Unit #13  
Oxford, CT 06478  
(203) 262-9245

ENGINEER

EVALUATE

TEST

CONSULT

**P.E. EVALUATION REPORT (PEER)**

**Owens Corning**

One Owens Corning Parkway  
Toledo, OH 43659  
**(740) 404-7829**

**PEER-OC-004.A.R14**

**FL10674-R19 (NON-HVHZ)**

Date of Issuance: 02/06/2012

**Revision 14: 10/23/2023**

**SCOPE:**

This P.E. Evaluation Report (henceforth 'PEER') is issued under **F.A.C. 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 **8<sup>th</sup> Edition (2023) Florida Building Code sections noted herein.**

**DESCRIPTION: Owens Corning Asphalt Roof Shingles (NON-HVHZ)**

**LABELING:** Labeling shall be in accordance with the requirements of the Accredited Quality Assurance Agency noted herein and **FBC 1507.2.7.1 / R905.2.6.1**

**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.

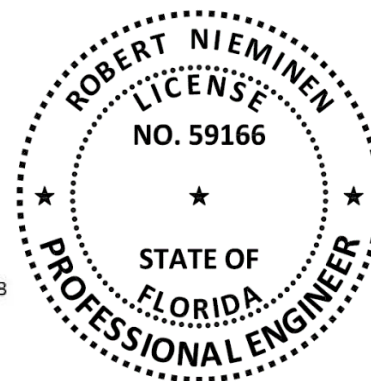
**INSPECTION:** Upon request, a copy of this entire PEER shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This PEER consists of pages 1 through 10.

**Prepared by:**

Digitally signed by  
Robert Nieminen  
Date: 2023.10.23  
'10:46:50 -04'00

This item has been digitally signed and sealed by Robert Nieminen, P.E.  
Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies.  
Robert Nieminen, Florida P.E. 59166, FBC ANE1983  
NEMO ETC, LLC, Florida CA #32455



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

**Sub-Category:** Asphalt Shingles

**Product Approval Method:** Method 1, Option D – Codified Material, Evaluation by Engineer

**Compliance Statement:** Owens Corning Asphalt Roof Shingles, as produced by Owens Corning, have demonstrated compliance with the following sections of the **8<sup>th</sup> Edition (2023) Florida Building Code** 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
1507.1.1, R905.1.1	Physical Properties	ASTM D1970
1507.2.5, R905.2.4	Material standard	ASTM D3462
1507.2.7.1, R905.2.6.1	Wind Resistance	ASTM D3161
1507.2.7.1, R905.2.6.1	Wind Resistance	ASTM D7158

**3. REFERENCES:**

ENTITY	EXAMINATION	REFERENCE	DATE
Owens Corning	Equivalency	Declaration	08/06/2019
PRI (CER12639)	Various Certifications	Various Certifications	Current
PRI (TST5878)	ASTM D1970	OCF-382-02-01	10/24/2017
PRI (TST5878)	ASTM D3161	OCF-459-02-01	08/16/2019
PRI (QUA9110)	Quality Control	Service Confirmation	04/05/2020
PRI (QUA9110)	Quality Control	Florida BCIS	Current

**4. PRODUCT DESCRIPTION:**

TABLE 1A: STARTER STRIPS			
PRODUCT	PLANT(s)	MATERIAL STANDARD	DESCRIPTION
Starter Strip Shingle	Houston, TX; Portland, OR	ASTM D3462	starter strips for asphalt roof shingles
Starter Strip Plus	Medina, OH; Minneapolis, MN; Portland, OR		
SRS TopShield Starter	Medina, OH; Minneapolis, MN; Portland, OR		
Starter Shingle Roll	Brentwood, NH	ASTM D1970	mineral-surfaced, fiberglass-reinforced, self-adhering SBS modified bitumen starter

TABLE 1B: ASPHALT SHINGLES			
PRODUCT	PLANT(s)	MATERIAL STANDARD	DESCRIPTION
Supreme®	Refer to <a href="#">PRI Certification</a>	ASTM D3462	fiberglass reinforced 3-tab asphalt roof shingles
Berkshire®	Refer to <a href="#">PRI Certification</a>	ASTM D3462	fiberglass reinforced, 4-tab asphalt roof shingles
Duration® Premium	Refer to <a href="#">PRI Certification</a>	ASTM D3462	fiberglass reinforced, laminated asphalt roof shingles
Duration® Premium COOL	Compton, CA		
Oakridge®	Refer to <a href="#">PRI Certification</a>		

TABLE 1B: ASPHALT SHINGLES			
PRODUCT	PLANT(S)	MATERIAL STANDARD	DESCRIPTION
TruDefinition® Duration®	Refer to <a href="#">PRI Certification</a>	ASTM D3462	fiberglass reinforced, laminated asphalt roof shingles
TruDefinition® Duration® Designer Color Collection	Refer to <a href="#">PRI Certification</a>		
TruDefinition® Duration STORM®	Refer to <a href="#">PRI Certification</a>		
TruDefinition® Oakridge®	Refer to <a href="#">PRI Certification</a>		

TABLE 1C: HIP AND RIDGE SHINGLES			
PRODUCT	PLANT(S)	MATERIAL STANDARD	DESCRIPTION
Berkshire® Hip and Ridge Shingles with Sealant	Refer to <a href="#">PRI Certification</a>	ASTM D3462	fiberglass reinforced, hip and ridge asphalt roof shingles
DuraRidge® Hip and Ridge Shingles with Sealant	Refer to <a href="#">PRI Certification</a>		
ProEdge®	Refer to <a href="#">PRI Certification</a>		

## 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 not 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 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 **Wind Classification:** Refer to [Section 6](#) for installation requirements to meet wind classifications

#### 5.5.1 Starter Strips:

TABLE 2A: WIND CLASSIFICATIONS, STARTER STRIPS	
PRODUCT	FBC TABLE 1507.2.7.1 OR R905.2.6.1
Starter Strip Shingle, Starter Strip Plus or SRS TopShield Starter	ASTM D3161, Class F

#### 5.5.2 Asphalt Shingles:

TABLE 2B: WIND CLASSIFICATIONS, ASPHALT SHINGLES	
PRODUCT	FBC TABLE 1507.2.7.1 OR R905.2.6.1
Supreme®, Berkshire®, Duration® Premium, Duration® Premium COOL, TruDefinition® Duration®, TruDefinition® Duration® Designer Color Collection, TruDefinition® Duration STORM®, Oakridge® or TruDefinition® Oakridge®	ASTM D3161(F) and ASTM D7158(H)

#### 5.5.2.1 Classification by ASTM D7158:

ASTM D7158, Class H applies only to **exposure category B or C** and a **building height of 60 feet or less**. Calculations by a qualified design professional are required for conditions outside these limitations. Contact the shingle manufacturer for data specific to each shingle.

#### 5.5.3 Hip and Ridge Shingle:

TABLE 2c: WIND CLASSIFICATIONS, HIP AND RIDGE SHINGLES	
PRODUCT	FBC TABLE 1507.2.7.1 OR R905.2.6.1
Berkshire® Hip and Ridge Shingles with Sealant, DuraRidge® Hip and Ridge Shingles with Sealant or ProEdge®	ASTM D3161, Class F

5.5.4 Refer to Owens Corning published information on wind resistance and installation limitations.

5.6 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 produced by a Product Manufacturer other than the report holder on [Page 1](#) of this PEER.

## 6. INSTALLATION:

### 6.1 GENERAL:

- 6.1.1 Roof deck, slope, underlayment and fasteners shall comply with **FBC 1507.2 / R905.2** and the shingle manufacturer's minimum requirements.
- 6.1.2 Underlayment shall be acceptable to **Owens Corning** and shall hold current [Florida Product Approval](#), or be Locally Approved in accordance with [Rule 61G20-3](#) (FBC Sections 1507.2.3 or R905.2.3).
- 6.1.3 Fasteners shall be in accordance with manufacturer's published requirements, but not less than **FBC 1507.2.6 or R905.2.5**. Staples are not permitted.
- 6.1.4 Owens Corning asphalt shingles are acceptable for use in reroof (tear-off) or recover applications, subject to the limitations set forth in **FBC Section 1511 or R908** and published installation instructions.

### 6.2 STARTER SHINGLES:

- 6.2.1 Installation of **Starter Strip Shingle, Starter Strip Plus** and **SRS TopShield Starter** shall comply with the **Owens Corning** current published instructions, using minimum five (5) nails per strip.

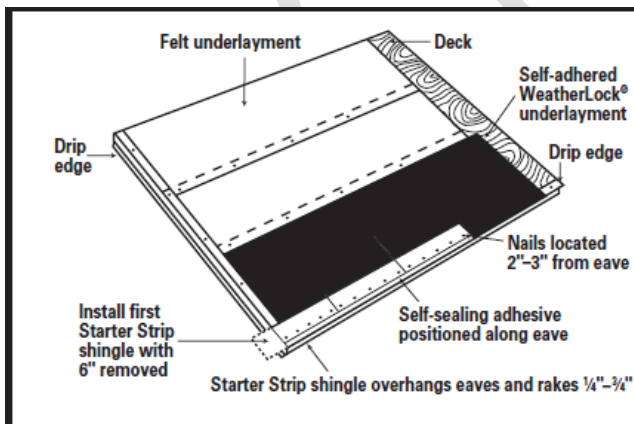


Figure 1: Minimum Nailing, Starter Strip

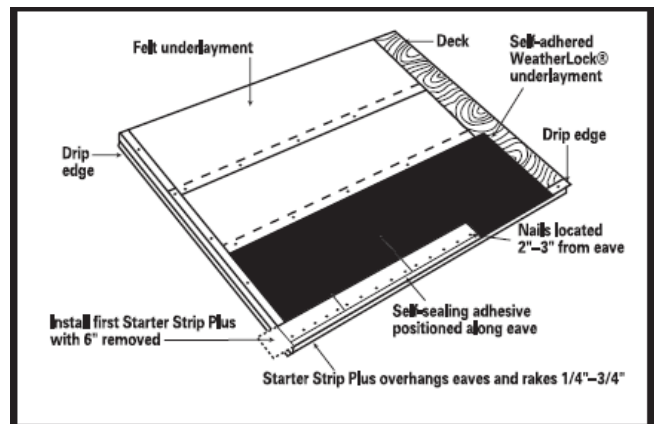


Figure 2: Minimum Nailing, Starter Strip Plus

6.2.2 Installation of **Starter Shingle Roll** shall comply with the Owens Corning current published instructions.

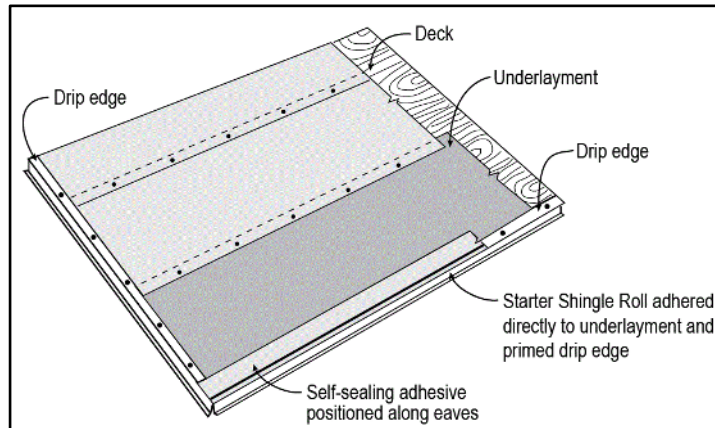


Figure 3: Starter Shingle Roll

### 6.3 ASPHALT SHINGLES:

6.3.1 Installation of asphalt shingles shall comply with the **Owens Corning** current published instructions, using minimum four (4) nails per shingle in accordance with **FBC 1507.2.7 or R905.2.6**, with the following exceptions:

- Berkshire® shingles require minimum five (5) nails per shingle.

Special methods of fastening are required when the roof slope exceeds 21 units vertical in 12 units horizontal. Refer to Owens Corning published information on wind resistance and installation limitations.

6.3.2 **Supreme:**

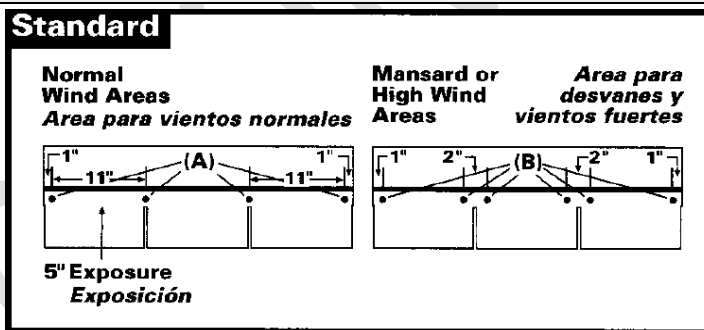


Figure 4: Minimum Nailing, Supreme (Standard Size)

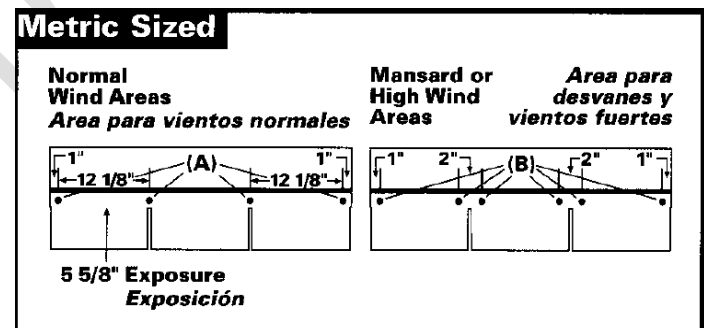


Figure 5: Minimum Nailing, Supreme (Metric Size)

6.3.3 Berkshire®:

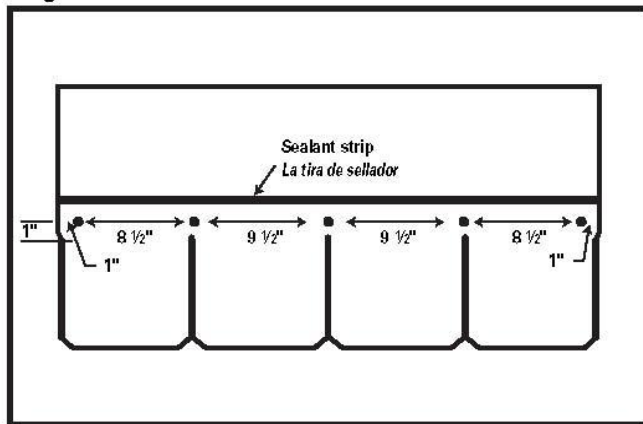


Figure 6: 5-Nail Pattern, Berkshire

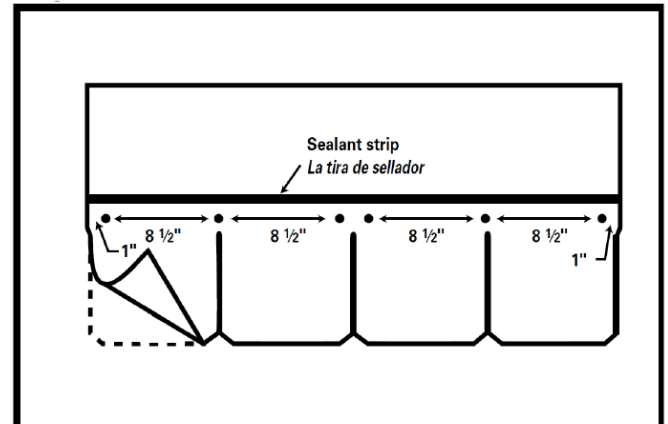


Figure 7: 6-Nail Pattern, Berkshire

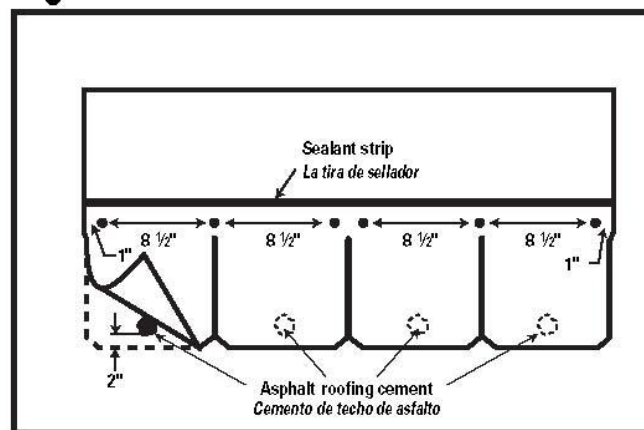


Figure 8: Mansard or Steep Slope Pattern, Berkshire

6.3.4

Duration® Premium, Duration® Premium COOL, TruDefinition® Duration, TruDefinition® Duration® Designer Color Collection and TruDefinition® Duration STORM®:

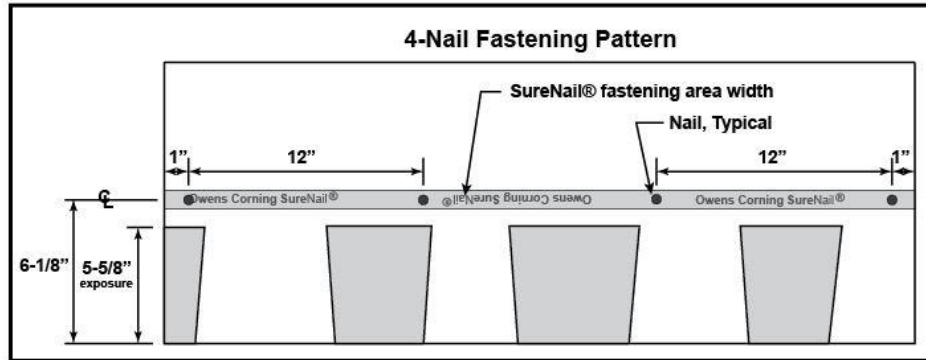


Figure 9: Standard 4-Nail Pattern, Duration

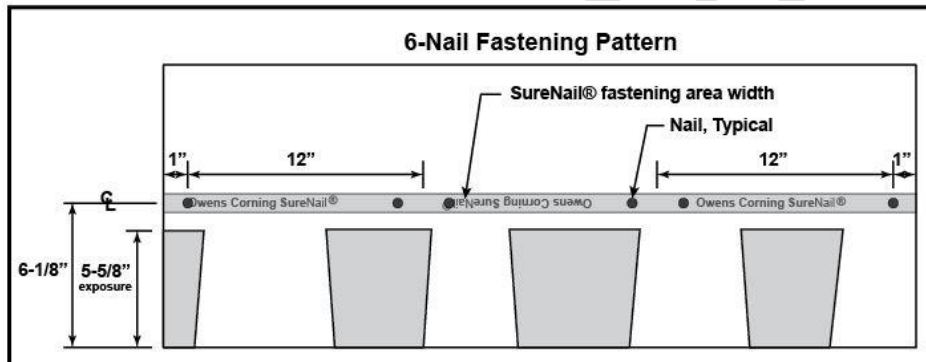


Figure 10: 6-Nail Pattern, Duration

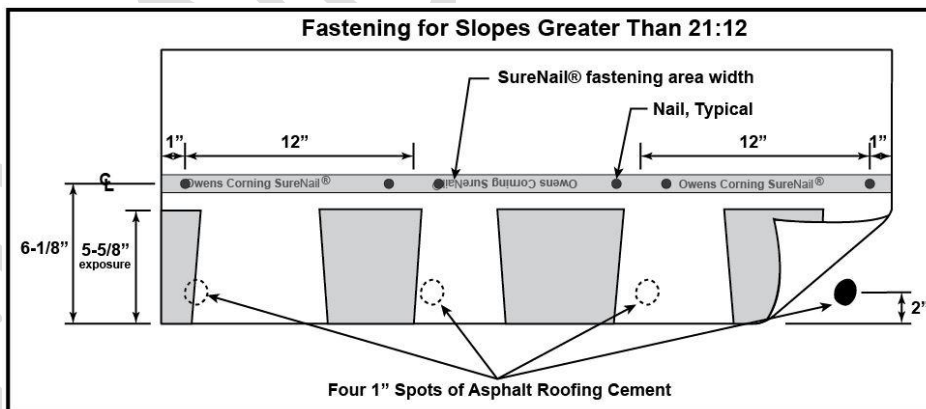


Figure 11: Mansard or Steep Slope Pattern, Duration



6.3.5 Oakridge® and TruDefinition® Oakridge®:

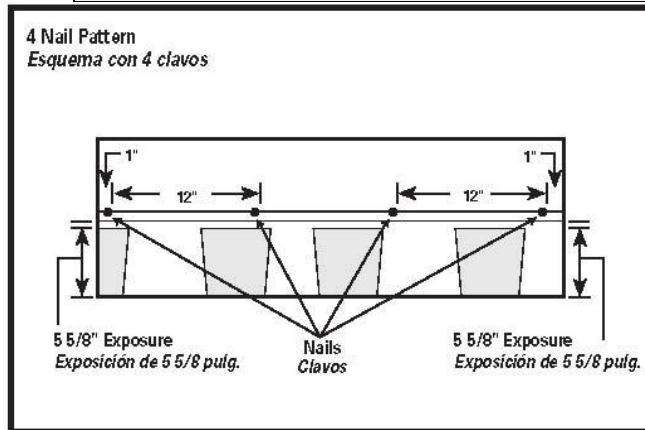


Figure 12: Standard 4-Nail Pattern, Oakridge

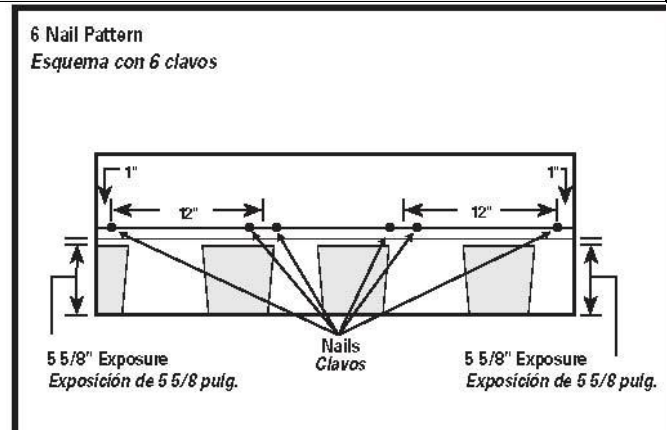


Figure 13: 6-Nail Pattern, Oakridge

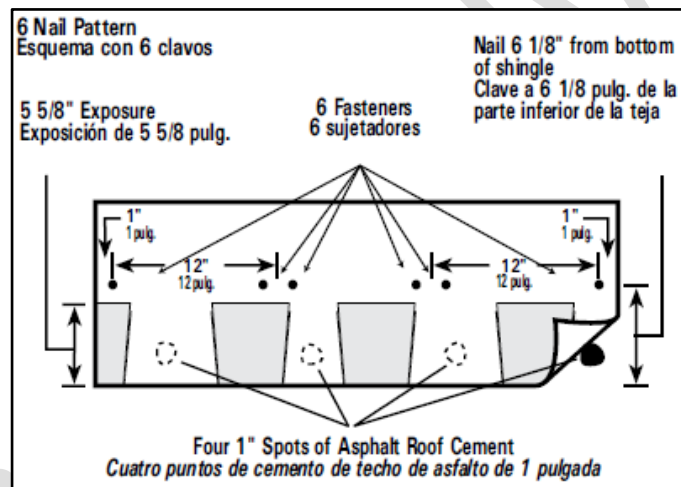


Figure 14: Mansard or Steep-Slope Pattern, Oakridge



#### 6.4 HIP AND RIDGE SHINGLES:

6.4.1 Installation of asphalt shingles shall comply with the Owens Corning current published instructions.

- Berkshire® Hip and Ridge Shingles *with Sealant* and DuraRidge® Hip and Ridge Shingles *with Sealant* require minimum two (2) nails per shingle.

Refer to Owens Corning published information on wind resistance and installation limitations.

#### 6.4.2 Berkshire® Hip and Ridge *with Sealant* and DuraRidge® Hip and Ridge Shingles *with Sealant*:

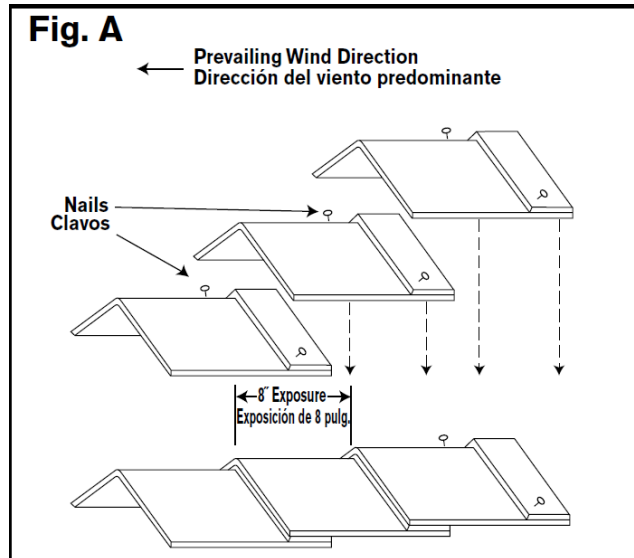


Figure 15: Isometric View, Berkshire and DuraRidge

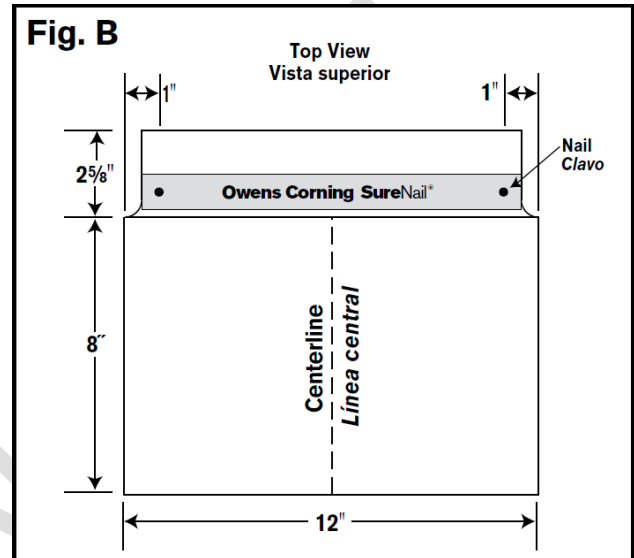


Figure 16: Plan View, Berkshire and DuraRidge

#### 6.4.3 ProEdge®:

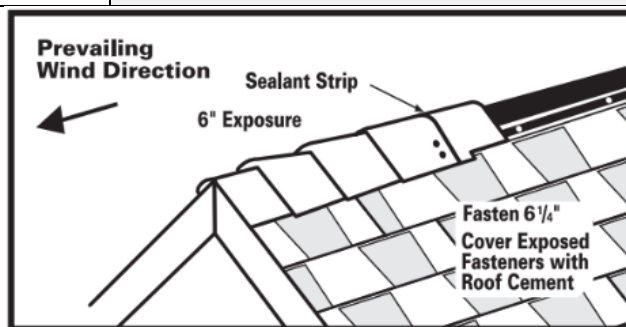


Figure 17: Isometric View, ProEdge

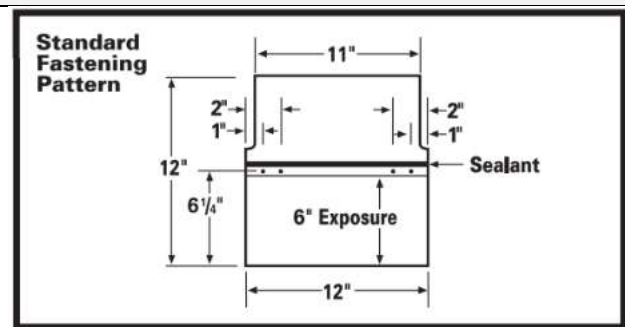


Figure 18: Plan View, ProEdge

**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:**

[PRI Construction Materials Technologies, LLC](#)— QUA9110 ; (813) 621-5777; [bwilson@pricmt.com](mailto:bwilson@pricmt.com)

- END OF PEER -

FBC NON-HVHZ



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Oxford, CT 06478  
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ENGINEER

EVALUATE

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**P.E. EVALUATION REPORT (PEER)**

**Owens Corning Roofing and Asphalt, LLC**

One Owens Corning Parkway  
Toledo, OH 43659  
(740) 321-6345

**PEER-OC-008.A.R2**

**FL32344-R2 (NON-HVHZ)**

Date of Issuance: 06/04/2020

**Revision 2: 10/23/2023**

**SCOPE:**

This P.E. Evaluation Report (henceforth 'PEER') is issued under **F.A.C. 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 **8<sup>th</sup> Edition (2023) Florida Building Code** [sections noted herein](#).

**DESCRIPTION: RhinoRoof® GRN (NON-HVHZ)**

**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 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.

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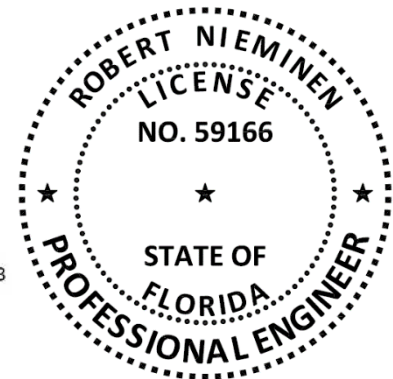
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**Prepared by:**

Digitally signed by  
Robert Nieminen  
Date: 2023.10.23  
'16:33:35 -04'00

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Robert Nieminen, Florida P.E. 59166, FBC ANE1983  
NEMO ETC, LLC, Florida CA #32455



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**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:** RhinoRoof® GRN, as produced by Owens Corning Roofing and Asphalt, LLC, has demonstrated compliance with the following sections of the 8<sup>th</sup> Edition (2023) Florida Building Code 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
1507.1.1, 1507.2.9.2 / R905.1.1, R905.2.8.2	Material standard	ASTM D1970

**3. REFERENCES:**

ENTITY	EXAMINATION	REFERENCE	DATE
PRI (TST5878)	ASTM D1970	OCF-293-02-03	12/20/2017
PRI (TST5878)	ASTM D1970	OCF-253-02-02	12/21/2017
PRI (QUA9110)	Quality Control	Service Confirmation	05/05/2020
PRI (QUA9110)	Quality Control	Florida BCIS	Current

**4. PRODUCT DESCRIPTION:**

TABLE 1: EVALUATED UNDERLAYMENTS			
PRODUCT	MATERIAL STANDARD	PLANT(S)	DESCRIPTION
RhinoRoof® GRN	ASTM D1970 (Table 1) <sup>i</sup>	Brentwood, NN Houston, TX	Granule-surfaced, self-adhering, roof underlayment

**5. LIMITATIONS:**

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- 5.2 This PEER is not 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 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 **RhinoRoof GRN** 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 2: ROOF COVER OPTIONS						
<a href="#">FBC NON-HVHZ:</a>	1507.2	1507.3		1507.4 & 1507.5	1507.7	1507.8 & 1507.9
UNDERLAYMENT	ASPHALT SHINGLES	CLAY AND CONCRETE TILE		METAL PANELS AND SHINGLES	SLATE OR SLATE-TYPE SHINGLES	WOOD SHINGLES AND SHAKES
		MECHANICAL ATTACH	ADHESIVE-SET			
RhinoRoof® GRN	Yes	No	No	No	Yes	Yes <sup>ii</sup>

## 5.7 Allowable Substrates:

TABLE 3 ALLOWABLE SUBSTRATE OPTIONS FOR ADHERED UNDERLAYMENTS				
UNDERLAYMENT	APPLICATION	SUBSTRATES (DESIGNED TO MEET WIND LOADS FOR PROJECT)		
		TYPE	PRIMER	MATERIAL(s)
RhinoRoof® GRN	self-adhering	Deck / sheathing	None	Plywood

## 5.8 Attachment Limitations:

For use under mechanically attached NON-TILE prepared roof coverings, attachment shall be in accordance with the manufacturer's installation instructions, but – for mechanically attached underlayments or base sheets - not less than **FBC 1507.1.1** or **R905.1.1**.

## 5.9 Exposure Limitations:

TABLE 4: EXPOSURE LIMITATIONS		
UNDERLAYMENT	PREPARED ROOF COVER INSTALLATION TYPE	MAXIMUM EXPOSURE (DAYS)
RhinoRoof® GRN	Mechanically attached	30

# 6. INSTALLATION:

6.1 **RhinoRoof GRN** shall be installed in accordance with **Owens Corning Roofing and Asphalt, LLC** published installation requirements subject to the [Limitations of Use](#) 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 prime the substrate (if applicable).

## 6.3 RhinoRoof® GRN:

### 6.3.1 Non-Tile Applications:

Shall be installed in compliance with requirements for an approved self-adhering underlayment (ASTM D1970) in **FBC 1507.1.1.1** or **FBC Residential R905.1.1.1** for the type of prepared roof covering to be installed, and the manufacturer's installation instructions.

When installed over a mechanically attached base sheet of FBC Approved ASTM D226 Type II felt or ASTM D4869, Type III or IV felt, the base sheet shall be fastened in accordance with **FBC 1507.1.1** or **R905.1.1**.

**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:**

[PRI Construction Materials Technologies, LLC](#) – QUA9110; (813) 621-5777; [bwilson@pricmt.com](mailto:bwilson@pricmt.com)

- END OF PEER -

<sup>i</sup> 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.

<sup>ii</sup> For wood shakes and shingles, product is used as min. 3 ¾-inch wide joint-strips per FBC 1507.1.1.1(2) / FBC R905.1.1.1(2) or installed in full-coverage atop ASTM D226, Type II felt or ASTM D4869 Type III or IV felt mechanically attached in accordance with FBC Table 1507.1.1.1 or FBC Residential Table R905.1.1.1.