



NEMO|etc.

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ENGINEER

TEST

CONSULT

P.E. EVALUATION REPORT (PEER)

Malarkey Roofing Products, Inc.

3131 N. Columbia Blvd.

Portland, OR 97217

(503) 283-1191

PEER-MLK-001.B.R4

FL14809-R9 (HVHZ)

Date of Issuance: 10/18/2019

Revision 4: 08/12/2024

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 **8th Edition (2023) Florida Building Code, High Velocity Hurricane Zone (HVHZ)** [sections noted herein](#).

DESCRIPTION: Malarkey Asphalt Roof Shingles (HVHZ)

LABELING: Labeling shall be in accordance with the requirements of the Accredited Quality Assurance Agency noted herein and [FBC 1523.5.1](#).

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 7.

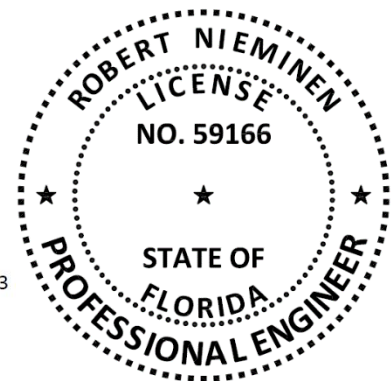
Prepared by:

Digitally signed by
Robert Nieminen
Date: 2024.08.12
'09:33:31 -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.
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.

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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: **Malarkey Asphalt Roof Shingles**, as produced by **Malarkey Roofing Products**, have demonstrated compliance with the following sections of the **8th Edition (2023) Florida Building Code, High Velocity Hurricane Zone (HVHZ)** 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
1523.6.5.1, TAS 110	Physical Properties	ASTM D3462
1523.6.5.1, TAS 110	Wind Resistance	TAS 107
1523.6.5.1, TAS 110	Wind Driven Rain	TAS 100

3. REFERENCES:

ENTITY	EXAMINATION	REFERENCE	DATE
ATI (TST1558)	TAS 107	G2963.13-109-44	05/31/2017
ITS (CER1497)	ASTM D3462-Certified	32860	11/28/2022
ITS (TST1509)	TAS 107	100030478COQ-006	04/10/2010
PRI (TST5878)	TAS 107	MRP-070-02-01	08/04/2014
PRI (TST5878)	TAS 100	MRP-082-02-01	01/22/2016
PRI (TST5878)	TAS 100	MRP-084-02-02	01/22/2016
PRI (TST5878)	TAS 100	MRP-128-02-01	06/05/2017
PRI (TST5878)	TAS 100	MRP-146-02-01	08/05/2019
PRI (TST5878)	TAS 107	603T0015	05/17/2023
PRI (TST5878)	ASTM D3462	603T0010	05/19/2023
PRI (TST5878)	TAS 107	603T0012	05/19/2023
PRI (TST5878)	ASTM D3462	603T0013	05/19/2023
PRI (TST5878)	TAS 100	603T0018	07/24/2023
PRI (TST5878)	ASTM D3462	603T0021	02/14/2024
UL LLC (TST9628)	TAS 107	4786082585	05/31/2016
ITS (QUA1673)	Quality Control	Inspection Report	02/28/2020
ITS (QUA1673)	Quality Control	Florida BCIS	Current

4. PRODUCT DESCRIPTION:

TABLE 1A: STARTER STRIPS			
PRODUCT	DESCRIPTION	MATERIAL STANDARD	PLANT(S)
Smart Start™	Fiberglass reinforced, polymer modified asphalt starter shingle, perforated lengthwise, and measuring 16 3/8" (full-size), 8 3/16" (piece-size) x 38 1/4"	ASTM D3462	Portland, OR

TABLE 1B: ASPHALT SHINGLES			
PRODUCT	DESCRIPTION	MATERIAL STANDARD	PLANT(S)
The Alaskan®	fiberglass reinforced, 3-tab, polymer-modified asphalt roof shingle	ASTM D3462	Portland, OR
Windsor®	fiberglass reinforced, polymer-modified asphalt roof shingle	ASTM D3462	Portland, OR
Vista™	fiberglass reinforced, laminated asphalt roof shingles	ASTM D3462	Oklahoma City, OK
Vista™ AR			
Legacy®	fiberglass reinforced, laminated, polymer-modified asphalt roof shingles	ASTM D3462	Portland, OR Oklahoma City, OK
Legacy® Scotchgard™			

TABLE 1C: HIP AND RIDGE SHINGLES			
PRODUCT	DESCRIPTION	MATERIAL STANDARD	PLANT(S)
RidgeFlex™	Fiberglass reinforced, polymer modified asphalt hip and ridge shingles	ASTM D3462	South Gate, CA Oklahoma City, OK

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 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 **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 1523.6.5.1	NOTES
Smart Start	TAS 107	max. 33 ft Refer to Section 6

5.5.2 Asphalt Shingles:

TABLE 2B: WIND CLASSIFICATIONS, ASPHALT SHINGLES		
PRODUCT	FBC 1523.6.5.1	MEAN ROOF HEIGHT
The Alaskan®, Windsor®, Vista™, Vista™ AR, Legacy® and Legacy® Scotchguard™	TAS 107	max. 33 ft Refer to Section 6

5.5.3 Hip and Ridge Shingles:

TABLE 2C: WIND CLASSIFICATIONS, HIP & RIDGE SHINGLES		
PRODUCT	FBC 1523.6.5.1	NOTES
RidgeFlex™	TAS 107	max. 33 ft Refer to Section 6

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

6. INSTALLATION:

6.1 GENERAL:

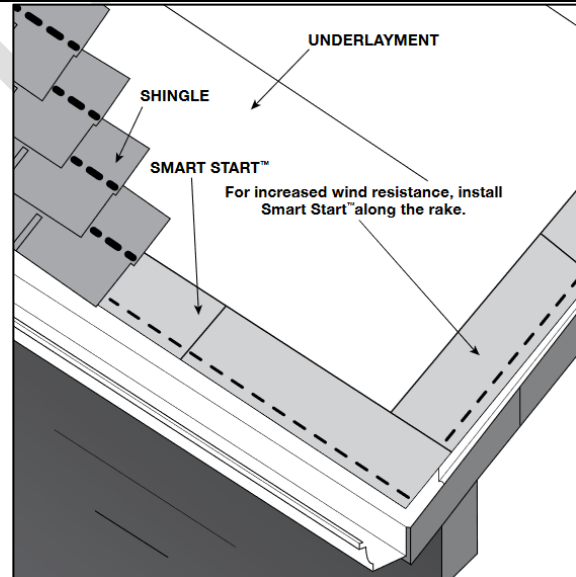
- 6.1.1 Roof deck, slope, underlayment, fasteners, flashings and metal accessories shall comply with [Roofing Application Standard RAS 115](#) and the shingle manufacturer's minimum requirements.
- 6.1.2 Underlayment shall be acceptable to the shingle-manufacturer and shall hold current Florida Statewide Product Approval, or be Locally Approved per [Rule 61G20-3](#), for use in FBC HVHZ jurisdictions, per **FBC Sections 1518.7.1** and [Roofing Application Standard RAS 115](#).
- 6.1.3 Installation of asphalt shingles shall comply with the **Malarkey Roofing Products** current published instructions, using minimum six (6) nails per shingle in accordance with **FBC 1518.7.3.2**.
- 6.1.4 Fasteners shall be in accordance with manufacturer's published requirements, but not less than [Roofing Application Standard RAS 115](#). Staples are not permitted.
- 6.1.5 **Malarkey Asphalt Roof Shingles** are acceptable for use in reroof (tear-off) or recover applications, subject to the limitations set forth in FBC Section 1521 and Malarkey published installation instructions.

6.2 STARTER SHINGLES:

6.2.1 Smart Start™

After underlayment installation and prior to field-shingle installation, apply Smart Start™ starter shingles with the factory-applied sealant strip facing up, and adjacent to the roof edge. The starter course should overhang the rake and eave by ¼ to ¾-inch. Install first along the eave, then the rake, butting the rake course loosely against the eave course.

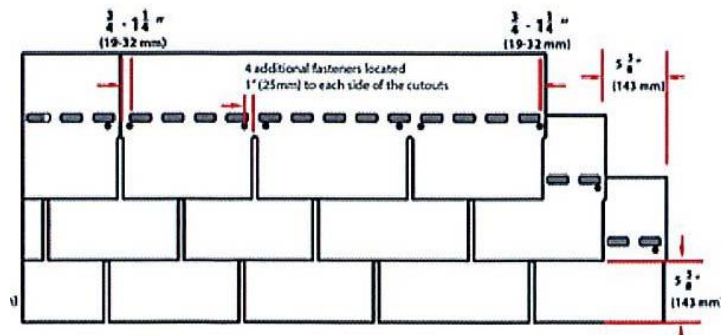
Set Smart Start™ in an 8-inch wide x 1/8-inch thick bed of FBC HVHZ Approved, ASTM D4586 roof cement and fasten using seven (7) 12 gauge x 1¼", corrosion-resistant, ring shank roofing nails with 3/8" diameter heads per shingle, located 4-inch from the leading edge, 1-inch from each end and evenly spaced 6-inch o.c.



6.3 ASPHALT SHINGLES:

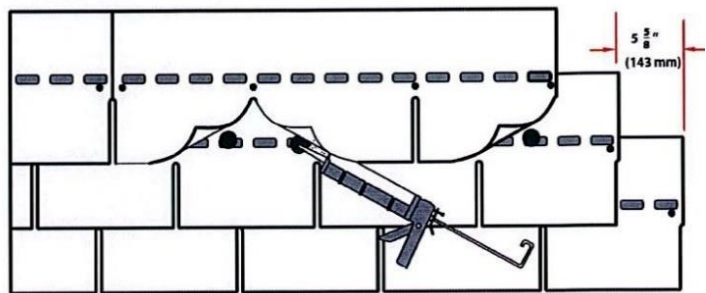
6.3.1 3-Tab Shingles:

Use minimum six (6) fasteners for each shingle. Nails must be placed just below the seal-down strip, $\frac{3}{4}$ -inch to $1\frac{1}{4}$ -inch in from each edge of the shingle, with the four (4) remaining nails spaced 1-inch on either side of each cutout on the same line as the end nails ($\pm\frac{1}{2}$ -inch).



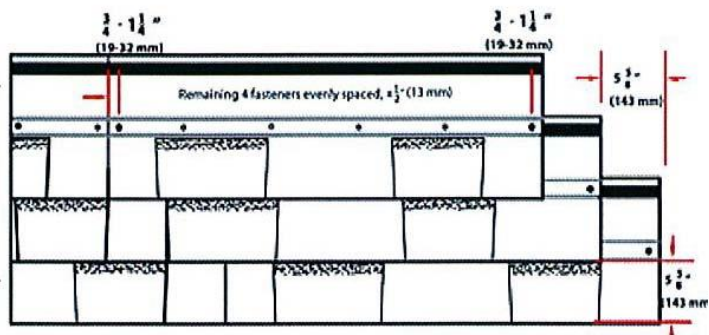
Roof Slope greater than 12:12:

Apply a quarter-sized dab of FBC HVHZ Approved, **ASTM D4586, Type I or II** asphalt roof cement in each tab corner, pressing the shingle firmly into the cement. This hand-tabbing also applies if the customer or Authority Having Jurisdiction require immediate sealing. Refer to **Malarkey Roofing Products** published installation instructions for 3-tab shingles for further details.



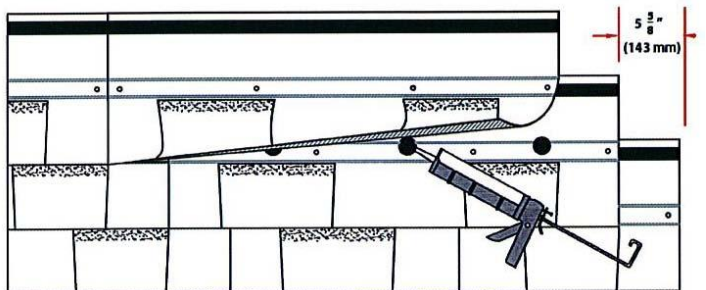
6.3.2 Laminate Shingles:

Use minimum six (6) fasteners for each shingle. Nails must be placed within the nailing area, $\frac{3}{4}$ -inch to $1\frac{1}{4}$ -inch in from each edge of the shingle, with the four (4) remaining nails evenly spaced between the end nails ($\pm\frac{1}{2}$ -inch).



Roof Slope greater than 12:12:

Apply four, evenly spaced quarter-sized dabs of FBC HVHZ Approved, **ASTM D4586, Type I or II** asphalt roof cement, pressing the shingle firmly into the cement. This hand-tabbing also applies if the customer or Authority Having Jurisdiction require immediate sealing. Refer to **Malarkey Roofing Products** published installation instructions for laminate shingles for further details.



6.3.3 Windsor® Shingles:

Roof Slope less than or equal to 21:12:

Use minimum six (6) fasteners for each shingle. Four (4) nails should be fastened in the low nail area approximately ¾-inch above the tabs. Make sure to nail such that all low nail area fasteners are covered by tabs of the overlying course. The two interior notches at the top of the shingle will aid in alignment of the two interior low nailing area fasteners. Two end nails should be placed in-between the nailing lines, approximately 1-inch from each edge.

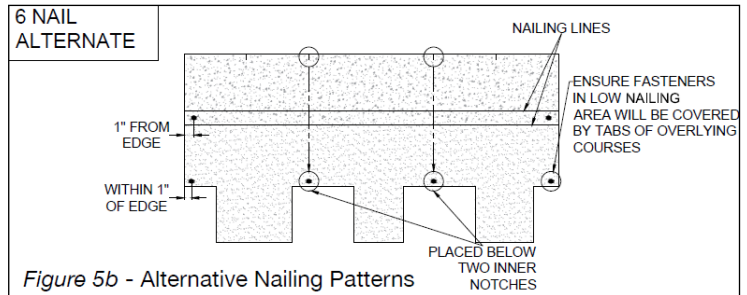


Figure 5b - Alternative Nailing Patterns

Roof Slope greater than 21:12: Use minimum nine (9) fasteners for each shingle, with five (5) nails in the high nail area, and four (4) nails in the low nail area approximately ¾-inch above the tabs. Make sure to nail such that all low nail area fasteners are covered by tabs of the overlying course. The two interior notches at the top of the shingle will aid in alignment of the two interior low nailing area fasteners. The five (5) fasteners in the high nail area must be placed in-between the nailing lines with end fasteners approximately 1-inch from each edge of the shingle. The remaining fasteners should be evenly spaced on the same line as the end fasteners. In addition, apply a quarter-sized dab of asphalt cement complying with **ASTM D4586, Type I or II** centered under each shingle tab, pressing the shingle firmly into the cement. This hand-tabbing also applies if the customer or Authority Having Jurisdiction require immediate sealing. Refer to **Malarkey Roofing Products** published installation instructions for further details

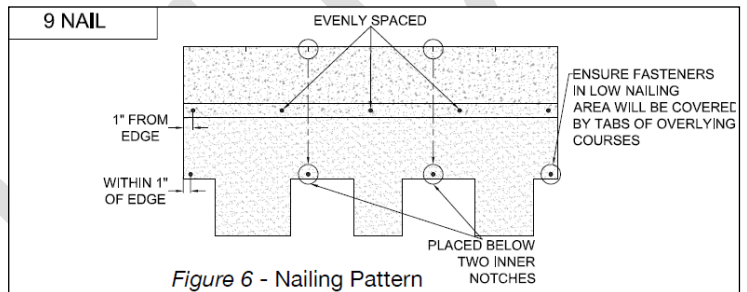
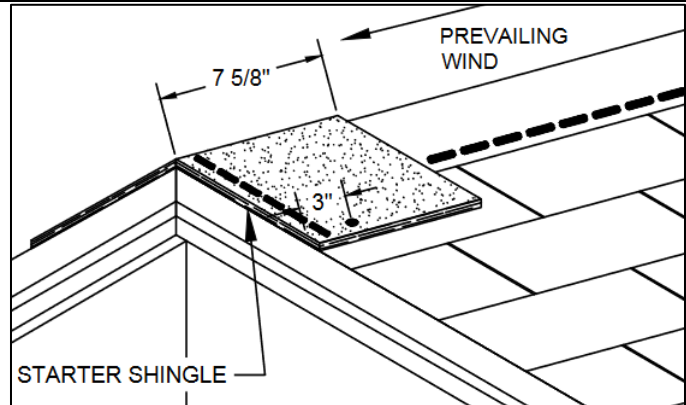


Figure 6 - Nailing Pattern

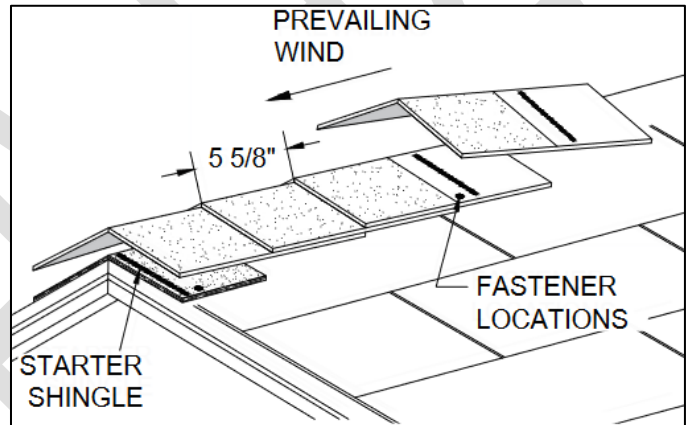
6.4 HIP AND RIDGE SHINGLES:

6.4.1 RidgeFlex™

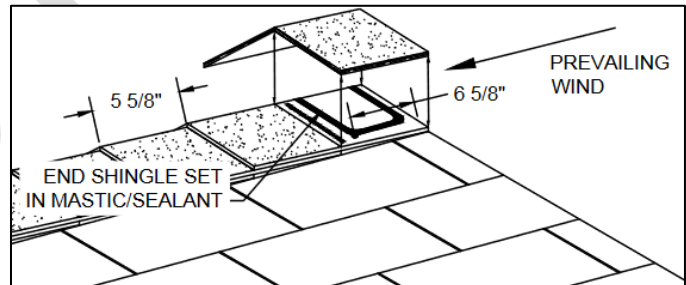
Apply the starter shingle (with seal-down strip adjacent to the roof edge) over the bottom corner of the hip or on the end of the ridge, overhanging by $\frac{1}{4}$ to $\frac{3}{4}$ -inch, and bending the starter shingle along its centerline to form into place. Ensure shingles are sufficiently warm to avoid cracking. Fasten with two nails, approximately 3-inch back from the leading edge and 1-inch up from each side.



Lay the first full-size shingle on top of the starter shingle (maintaining the overhang). Fasten with two nails, 1-inch more than the designed exposure and 1-inch up from each side such that subsequent shingles conceal nailheads. Continue installing shingles across the ridge, maintaining the $5 \frac{5}{8}$ -inch exposure and fasten with one nail to a side.



At the end of the ridge, cut a shingle strip, and use the lower $5 \frac{5}{8}$ -inch portion of a RidgeFlex shingle to create an end cap, maintaining the $5 \frac{5}{8}$ -inch exposure. Set the end cap in FBC HVHZ Approved, ASTM D4586, Type I or II asphalt roof cement, and press down firmly to seal.



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:

[Intertek Testing Services NA Inc. – QUA1673](#); (312) 906-7779; maura.norlander@intertek.com

- END OF PEER -