

## Nemo etc.

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

ENGINEER EVALUATE TEST CONSULT

#### **EVALUATION REPORT**

Malarkey Roofing Products, Inc. 3131 N. Columbia Blvd. Portland, OR 97217 (503) 283-1191 Evaluation Report M37970.08.11-R6 FL14809-R6 (NON-HVHZ)

> Date of Issuance: 08/24/2011 Revision 6: 12/07/2020

#### 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: Malarkey Asphalt Roof Shingles** 

**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 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 7.

Prepared by:

Robert J.M. Nieminen, P.E.

Florida Registration No. 59166, Florida DCA ANE1983

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The facsimile seal appearing was authorized by Robert Nieminen, P.E. on 12/07/2020. 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.

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#### **ROOFING SYSTEMS EVALUATION:**

#### 1. SCOPE:

**Product Category:** Roofing

**Sub-Category:** Asphalt Shingles

**Compliance Statement: Malarkey Asphalt Roof Shingles**, as produced by **Malarkey Roofing Products**, have 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:             |                   |                 |             |  |  |
|----|------------------------|-------------------|-----------------|-------------|--|--|
|    | Section                | <u>Property</u>   | <u>Standard</u> | <u>Year</u> |  |  |
|    | 1507.2.5, R905.2.4     | Material standard | ASTM D3462      | 2010        |  |  |
|    | 1507.2.7.1, R905.2.6.1 | Wind Resistance   | ASTM D3161      | 2016        |  |  |
|    | 1507.2.7.1, R905.2.6.1 | Wind Resistance   | ASTM D7158      | 2019        |  |  |

| 3. | REFERENCES:      |                       |                   |             |
|----|------------------|-----------------------|-------------------|-------------|
|    | <u>Entity</u>    | <u>Examination</u>    | <u>Reference</u>  | <u>Date</u> |
|    | ATI (TST1558)    | ASTM D3462            | G4772.01-106-31   | 05/30/2017  |
|    | ERD (TST6049)    | ASTM D3462            | 3270.03.07-1-R3   | 12/17/2009  |
|    | ERD (TST6049)    | ASTM D3462            | M12660.02.09-R1   | 12/17/2009  |
|    | ITS (TST1509)    | ASTM D3161            | 100030478COQ-006  | 04/10/2010  |
|    | PRI (TST5878)    | ASTM D7158            | MRP-021-02-01     | 07/16/2009  |
|    | PRI (TST5878)    | ASTM D3161            | MRP-070-02-01     | 08/04/2014  |
|    | PRI (TST5878)    | ASTM D7158            | MRP-117-02-01     | 09/14/2017  |
|    | UL (TST1740)     | ASTM D3161 (EZ Ridge) | 09NK07261         | 06/26/2009  |
|    | UL (TST1740)     | ASTM D3161 (EZ Ridge) | TFWZ.R4299        | 04/21/2010  |
|    | UL (TST1740)     | ASTM D7158            | 05NK25994         | 03/16/2007  |
|    | UL LLC (TST9628) | ASTM D3462            | 4786489401        | 09/04/2015  |
|    | UL LLC (TST9628) | ASTM D3161            | 4786082585        | 05/31/2016  |
|    | ITS (QUA1673)    | Quality Control       | Inspection Report | 02/28/2020  |
|    | ITS (QUA1673)    | Quality Control       | Florida BCIS      | Current     |

#### 4. **PRODUCT DESCRIPTION: TABLE 1: ASPHALT SHINGLE COMPONENTS Product** Description **Material Standard** Plant(s) Type fiberglass reinforced 3-tab asphalt roof Dura-Seal™ XL **ASTM D3462** Portland, OR shingles fiberglass reinforced, 3-tab, polymer-**ASTM D3462** The Alaskan® Portland, OR modified asphalt roof shingle fiberglass reinforced, polymer-modified Windsor® **ASTM D3462** Portland, OR asphalt roof shingle Ecoasis™ Sol Asphalt Northwest–XL™ **Shingles** fiberglass reinforced, laminated asphalt Northwest–XL™ Scotchgard™ **ASTM D3462** Portland, OR roof shingles Vista™ Vista™ AR Ecoasis™ Premium Scotchgard™ fiberglass reinforced, laminated, Legacy® **ASTM D3462** Portland, OR polymer-modified asphalt roof shingles Legacy® Scotchgard™ fiberglass reinforced, hip and ridge Hip & Ridge EZ-Ridge™ **ASTM D3462** Portland, OR **Shingles** asphalt roof shingles EZ-Ridge XT™

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#### 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 Wind Classification:** Refer to Section 6 for installation requirements to meet wind classifications

| TABLE 2A: WIND CLASSIFICATIONS, ASPHALT SHINGLES  |                                    |  |  |  |
|---|------------------------------------|--|--|--|
| Product   | FBC Table 1507.2.7.1 or R905.2.6.1 |  |  |  |
| Dura-Seal™ XL, Ecoasis™ Sol, Legacy®, Legacy® Scotchgard™, Northwest–XL™, Northwest–XL™ Scotchgard™, Vista™ and Vista™ AR | ASTM D7158(H)                      |  |  |  |
| The Alaskan®, Northwest–XL™ and Windsor®  | ASTM D3161(F)                      |  |  |  |

#### 5.5.1 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.

| TABLE 2B: WIND CLASSIFICATIONS, HIP & RIDGE SHINGLES |                                    |  |
|--|------------------------------------|--|
| Product  | FBC Table 1507.2.7.1 or R905.2.6.1 |  |
| EZ–Ridge™ and EZ-Ridge XT™                           | ASTM D3161(F)                      |  |

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 Evaluation Report.

# 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 the shingle manufacturer and shall hold current Florida Statewide Product Approval, or be Locally Approved per Rule 61G20-3, per FBC Sections 1507.2.3, 1507.2.4 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 **Malarkey Asphalt Roof 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 Malarkey published installation instructions.

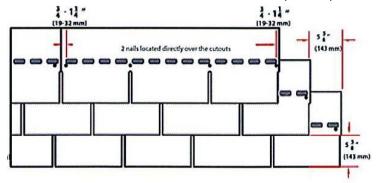


#### 6.2 ASPHALT SHINGLES:

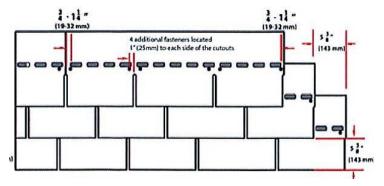
6.2.1 Installation of asphalt shingles shall comply with the Malarkey Roofing Products current published instructions, using minimum four (4) nails per shingle in accordance with FBC 1507.2.7 or R905.2.6, unless otherwise noted herein.

#### 6.2.2 **3-Tab Shingles:**

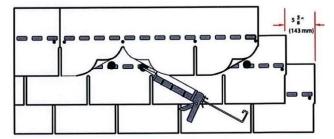
Roof Slope less than or equal to 12:12: Use minimum four (4) fasteners for each shingle. Nails must be placed just below the sealdown strip,  $\frac{1}{2}$ -inch to  $\frac{1}{2}$ -inch in from each edge of the shingle, with the two (2) remaining nails just above the cutout on the same line as the end nails ( $\frac{1}{2}$ -inch).



Roof Slope greater than 12:12: Use minimum six (6) fasteners for each shingle. Nails must be placed just below the sealdown strip,  $\frac{1}{4}$ -inch to  $\frac{1}{4}$ -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 ( $\frac{1}{4}$ -inch). This installation also applies if the local Authority Having Jurisdiction requires six (6) nail shingle application.



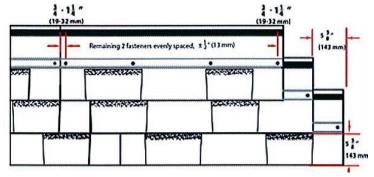
In addition, apply a quarter-sized dab of asphalt cement complying with **ASTM D4586**, **Type I or II** in each tab corner, pressing the shingle firmly into the cement. This hand-tabbing also apples if the customer or Authority Having Jurisdiction require immediate sealing. Refer to **Malarkey Roofing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



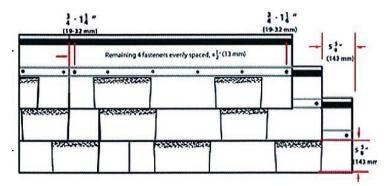


#### 6.2.3 **Laminate Shingles:**

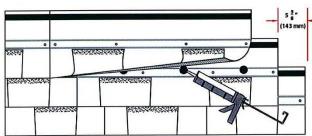
Roof Slope less than or equal to 12:12: Use minimum four (4) fasteners for each shingle. Nails must be placed within the nailing area,  $\frac{1}{4}$ -inch to  $\frac{1}{4}$ -inch in from each edge of the shingle, with the two (2) remaining nails evenly spaced between the end nails ( $\frac{1}{4}$ -inch).



Roof Slope greater than 12:12: Use minimum six (6) fasteners for each shingle. Nails must be placed within the nailing area,  $\frac{3}{2}$ -inch to  $\frac{1}{2}$ -inch in from each edge of the shingle, with the four (4) remaining nails evenly spaced between the end nails ( $\frac{1}{2}$ -inch). This installation also applies if the local Authority Having Jurisdiction requires six (6) nail shingle application.



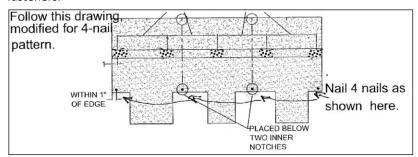
In addition, apply four, evenly spaced quarter-sized dabs of asphalt cement complying with **ASTM D4586, Type I** or **II**, pressing the shingle firmly into the cement. This hand-tabbing also apples if the customer or Authority Having Jurisdiction require immediate sealing. Refer to **Malarkey Roofing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



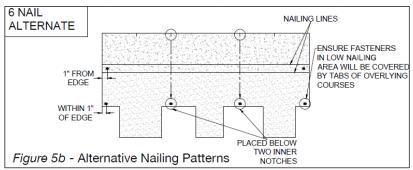


#### 6.2.4 Windsor® Shingles:

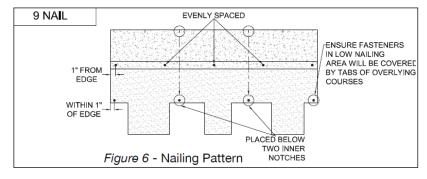
Roof Slope less than 21:12: Use minimum four (4) fasteners for each shingle in the low nail area approximately %-inch above the tabs. Make sure to nail such that all low nail area fasteners are covered by tabs of the overlying course. The two interior notches at the top of the shingle will aid in alignment of the two interior low nailing area fasteners.



Roof Slope less than or equal to 21:12: When required, use minimum six (6) fasteners for each shingle. Four (4) nails should be fastened in the low nail area approximately %-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 inbetween the nailing lines, approximately 1-inch from each edge.



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 apples if the customer or Authority Having Jurisdiction require immediate sealing. Refer to Malarkey Roofing Products published installation instructions for further details

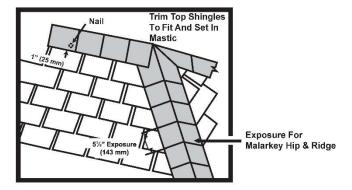




#### 6.3 HIP AND RIDGE SHINGLES:

6.3.1 Place hip/ridge shingle in position over installed field shingles, centered at the hip/ridge line, overlapping to maintain 5<sup>5</sup>/<sub>8</sub>-inch exposure.

Install one (1) nail on each side of the hip/ridge, 6½-inch from the exposed end and 1-inch up from the shingle edge. Apply a quarter-sized dab of asphalt cement complying with **ASTM D4586**, **Type I or II** in each tab corner, pressing the shingle firmly into the cement.



### 6.3.2 **EZ-Ridge™ and EZ-Ridge XT™:**

Place hip/ridge shingle in position over installed field shingles, centered at the hip/ridge line, overlapping to the cut-out and maintaining an 8¼-inch exposure. Push down on the center of the shingle, ensuring the entire front of the shingle is aligned with the underlying cut-out, and nail to fit the roof pitch.

Concealed Nails: Install one (1) nail on each side of the hip & ridge shingle ¾-inch behind the cut out (not on the exposed part of the shingle).

#### 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. - ETL/Warnock Hersey - QUA1673; (604) 520-3321

- END OF EVALUATION REPORT -

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7<sup>TH</sup> EDITION (2020) FBC NON-HVHZ EVALUATION Malarkey Asphalt Roof Shingles

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