



NEMO|etc.

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

ENGINEER

EVALUATE

TEST

CONSULT

EVALUATION REPORT

GAF

1 Campus Drive
Parsippany, NJ 07054
(800) 766-3411

Evaluation Report 3m-GAF-20-FBCER.B-R0

FL31588-R1 (HVHZ)

Date of Issuance: 08/10/2020

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 products described herein have been evaluated for compliance with the intent of the **6th Edition (2017) Florida Building Code** sections noted herein.

DESCRIPTION: Royal Sovereign® Asphalt Roof Shingles for use in HVHZ jurisdictions

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 Evaluation Report is valid until the named product(s) changes, the referenced Quality Assurance documentation changes, or provisions of the Code that relate to the product change. Acceptance of this Evaluation Report by the named client constitutes agreement to notify Robert Nieminen, P.E. of any changes to the product(s), the Quality Assurance or the production facility location(s). NEMO|etc. requires a complete review of this Evaluation Report relative to updated Code requirements with each Code Cycle.

ADVERTISEMENT: The Evaluation Report number 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.

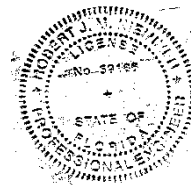
INSPECTION: Upon request, a copy of this entire Evaluation Report shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

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 08/10/2020. This does not serve as an electronically signed document.

CERTIFICATION OF INDEPENDENCE:

1. NEMO|etc. 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. 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. 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 SYSTEMS EVALUATION:
1. SCOPE:

Product Category: Roofing
Sub-Category: Asphalt Shingles
Compliance Statement: Royal Sovereign® asphalt roof shingles, as produced by GAF, have demonstrated compliance with the intent of the following sections of the 6th Edition (2017) Florida Building Code. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

2. STANDARDS:

Section	Property
104.11	Alternative materials
1504.6	Accelerated Weathering
1523.6.5.1	Wind Resistance
1523.6.5.1	Wind Driven Rain

3. REFERENCES:

Entity	Examination	Reference	Date
UL, LLC. (TST 9628)	ASTM G155, TAS 107, TAS 100	12CA61054	11/16/2012
UL, LLC. (QUA 9625)	Quality Control	Service Confirmation	02/13/2020

4. PRODUCT DESCRIPTION:

TABLE 1: ASPHALT SHINGLE COMPONENTS						
Type	Product	Description	Material Standard*			Plant(s)
			Property	Method	Result	
Asphalt Shingles	Royal Sovereign®	Fiberglass reinforced, 3-tab asphalt roof shingle	Loss on heating	ASTM D228	max. 1.5%	CA, FL, GA, IN, PA, TX
			Sliding on heating		max. 1/16-inch	
			Tear strength	ASTM D1922 per D228	min. 3.75 lbs	
			Penetration, asphalt	ASTM D5	min. 15	
			Softening point, asphalt	ASTM D36	190 ≤ °F ≤ 320	
			Fastener pull-through resistance	ASTM D3462	@73°F: min. 20 lbf @32°F: min. 23 lbf	
			Pliability at 73°F	ASTM D3462	4 of 5 pass	
			Granule embedment	ASTM D4977	max. 1 g	
			Weather resistance	ASTM G155, Cycle 1, 2000 hrs	no cracks, erosion or exposed felt	
			Breaking strength, after weathering	ASTM D146, Section 13	min. 80% retained strength	
		Wind driven rain	TAS 100	pass		

*Test options per FBC 104.11.2

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 Non-High Velocity Hurricane Zone jurisdictions (i.e., outside of 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 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.

TABLE 2A: WIND CLASSIFICATIONS, ASPHALT SHINGLES		
Product	FBC 1523.6.5.1	Mean Roof Height
Royal Sovereign®	TAS 107	max. 33 ft

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.

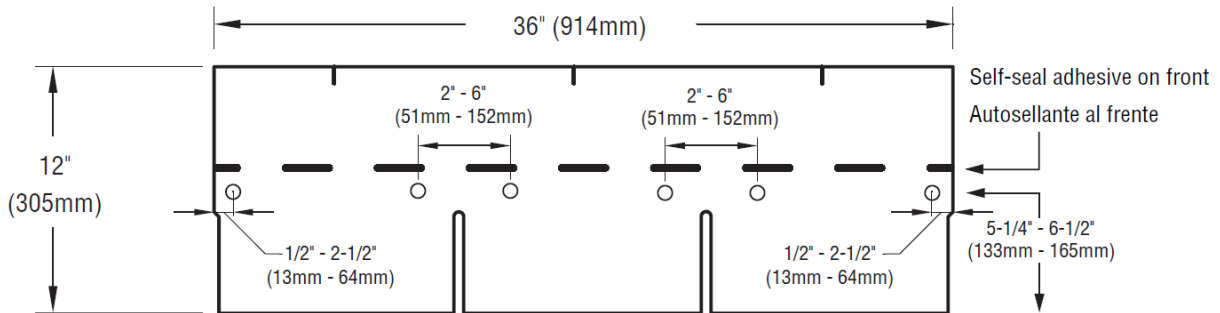
6. INSTALLATION:

6.1 GENERAL:

- 6.1.1 Roof deck, slope, underlayment, 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 GAF 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**.

6.2 ASPHALT SHINGLES:

6.2.1 Installation of **Royal Sovereign® Asphalt Roof Shingles** shall comply with the GAF current published instructions, using minimum six (6) nails per shingle in accordance with **FBC 1518.7.3.2** and **Roofing Application Standard RAS 115**.



- 6.2.2 Fasteners shall be in accordance with manufacturer’s published requirements, but not less than **Roofing Application Standard RAS 115**. Staples are not permitted.
- 6.2.3 Where the roof slope exceeds 21 units vertical in 12 units horizontal, special methods of fastening are required. Contact the GAF for details.

7. LABELING:

- 7.1 Labeling shall be in accordance with the requirements the Accredited Quality Assurance Agency noted herein and **FBC 1523.5.1**.
- 7.2 The **Royal Sovereign®** asphalt roof shingles evaluated herein are defined on the packaging as follows:
- ✓ Florida Statewide Product Approval **FL31588**

8. BUILDING PERMIT REQUIREMENTS:

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

9. 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.

10. QUALITY ASSURANCE ENTITY:

UL LLC – QUA9625; (414) 248-6409; karen.buchmann@ul.com

- END OF EVALUATION REPORT -