

Nemoletc.

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ENGINEER TEST CONSULT

P.E. EVALUATION REPORT (PEER)

GAF

1 Campus Drive Parsippany, NJ 07054

(800) 766-3411

PEER-GAF-005.A.R23

FL16311-R23

Date of Issuance: 04/23/2013

Revision 23: 11/26/2024

SCOPE:

This P.E. Evaluation Report (henceforth 'PEER') is issued under **F.A.C.** <u>Rule 61G20-3</u> 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**th **Edition (2023) Florida Building Code** sections noted herein.

DESCRIPTION: EnergyGuard™ Roof Insulations

LABELING: Labeling shall be in accordance with the requirements of the Accredited Quality Assurance Agency noted herein.

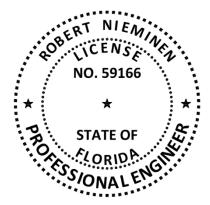
CONTINUED COMPLIANCE: This PEER is valid until such time as the named product(s) changes, the referenced Quality Assurance or production facility location(s) changes, or Code provisions that relate to the product(s) change. Acceptance of our PEERs by the named client constitutes agreement to notify NEMO 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: "Nemo P.E. Evaluated" may be displayed in advertising literature. If any portion of the PEER is displayed, then it shall be 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 5.

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.

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ROOFING COMPONENT EVALUATION:

1. SCOPE:

Product Category: Roofing Sub-Category: Insulation

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

Compliance Statement: EnergyGuard™ Roof Insulations, as produced by **GAF**, have demonstrated compliance with the following sections of the 8th **Edition (2023) Florida Building Code** through testing in accordance with the following Standards. Compliance is subject to the <u>Installation Requirements</u> and <u>Limitations of Use</u> set forth herein.

2. STANDARDS:

SECTION	PROPERTY	STANDARD
1508.2	Material standard	ASTM C1289
1520.1	Physical properties	TAS 110, Section 8
2603.3	Surface-burning characteristics	ASTM E84 ¹

3. REFERENCES:

ENTITY	EXAMINATION	REFERENCE	DATE
FM (CER1840)	Traceability	RR225769-267	11/23/2020
FM (CER1840)	Traceability	PR463492	10/13/2022
FM (CER1840)	Traceability	RR242812-267	09/06/2024
FM (TST1867)	FM 4470	PR461460	11/15/2022
PRI (TST5878)	ASTM C1289 (GA)	GAF-411-02-01	05/02/2013
PRI (TST5878)	ASTM C1289 (GA)	GAF-412-02-01	05/02/2013
PRI (TST5878)	ASTM C1289 (GA)	GAF-417-02-01	05/28/2013
PRI (TST5878)	ASTM C1289 (TX)	GAF-581-02-01	07/22/2015
PRI (TST5878)	ASTM C1289 (TX)	GAF-580-02-01	07/22/2015
PRI (TST5878)	ASTM C1289 (UT)	GAF-602-02-01	09/18/2015
PRI (TST5878)	ASTM C1289, TAS 110 (UT)	GAF-629-02-01	02/29/2016
PRI (TST5878)	ASTM C1289, TAS 110 (TX)	GAF-707-02-01	09/22/2016
PRI (TST5878)	ASTM C1289 (TX)	GAF-706-02-01	09/22/2016
PRI (TST5878)	ASTM C1289 (TX)	GAF-704-02-01	09/22/2016
PRI (TST5878)	ASTM C1289, TAS 110 (TX)	GAF-714-02-01	11/08/2016
PRI (TST5878)	ASTM C1289, TAS 110 (UT)	GAF-760-02-01	05/15/2017
PRI (TST5878)	ASTM C1289, TAS 110 (GA)	GAF-769-02-01	07/17/2017
PRI (TST5878)	ASTM C1289, TAS 110 (UT)	GAF-772-02-01	08/01/2017
PRI (TST5878)	ASTM C1289 (UT)	GAF-774-02-01	08/01/2017
PRI (TST5878)	ASTM C1289 (GA)	GAF-786-02-01	10/27/2017
PRI (TST5878)	ASTM C1289, TAS 110 (UT)	GAF-819-02-01	02/14/2018
PRI (TST5878)	ASTM C1289, TAS 110 (UT)	GAF-830-02-01	04/20/2018
PRI (TST5878)	ASTM C1289, TAS 110 (GA)	GAF-857-02-01	09/20/2018
PRI (TST5878)	ASTM C1289 (GA)	GAF-856-02-01	09/20/2018
PRI (TST5878)	ASTM C1289, TAS 110 (TX)	376T0060.03	05/14/2020
PRI (TST5878)	ASTM C1289 (TX)	376T0086.02	10/16/2020
PRI (TST5878)	ASTM C1289, TAS 110 (PA)	376T0278	05/05/2022
PRI (TST5878)	ASTM C1289, TAS 110 (GA)	376T0286	06/27/2022
PRI (TST5878)	ASTM C1289, TAS 110 (PA)	376T0365.01	06/01/2023
PRI (TST5878)	ASTM C1289, TAS 110 (GA)	376T0371	06/02/2023
PRI (TST5878)	ASTM C1289, TAS 110 (UT)	376T0373	06/02/2023
PRI (TST5878)	ASTM C1289 (GA)	376T0372	12/13/2023
PRI (TST5878)	ASTM C1289 (GA)	376T0493	05/14/2024
PRI (TST5878)	ASTM C1289 (GA)	376T0494	05/14/2024
PRI (TST5878)	ASTM C1289 (TX)	376T0522	08/01/2024

¹ Numerical ratings as determined by ASTM E84 are not intended to reflect hazards presented by these materials under actual fire conditions.

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ENTITY	EXAMINATION	REFERENCE	DATE
PRI (TST5878)	ASTM C1289 (TX)	376T0520	08/01/2024
PRI (TST5878)	ASTM C1289 (PA)	376T0527	09/04/2024
R&D Services (TST1552)	ASTM C1289 (GA-L)	RD201193-R1	04/07/2021
R&D Services (TST1552)	ASTM C1289 (GA-L)	RD201208-R3	06/22/2021
R&D Services (TST1552)	ASTM C1289 (GA-L)	RD201199-R2	03/16/2022
UL, LLC. (TST9628)	ASTM E84	12CA42043	10/29/2012
UL, LLC. (TST9628)	ASTM E84 (TX)	4787285972	02/01/2016
UL, LLC. (TST9628)	ASTM E84 (TX)	4787438640	10/26/2016
UL, LLC. (TST9628)	ASTM E84 (GA)	4788035489	11/06/2017
UL, LLC. (TST9628)	ASTM E84 (UT)	4788129635	11/06/2017
UL, LLC. (TST9628)	ASTM E84 (TX)	4788129642	04/30/2018
UL, LLC. (TST9628)	ASTM E84	4790706284	03/03/2023
UL, LLC. (TST9628)	ASTM E84	4790706284	03/07/2023
UL, LLC. (TST9628)	ASTM E84 (GA)	4791180280	04/12/2024
UL, LLC. (TST9628)	ASTM E84 (GA)	4791063923	05/29/2024
UL, LLC. (CER9626)	UL 1256	TJBX.R1306	10/05/2022
UL, LLC. (QUA9625)	Quality Control	Service Confirmation	07/12/2022
UL, LLC. (QUA9625)	Quality Control	Florida BCIS	Current

4. PRODUCT DESCRIPTION:

The following roof insulations are mechanically attached or adhered to approved substrates using fasteners, stress plates and adhesives, as outlined in the Roof System <u>Florida Product Approval</u>.

TABLE 1: EVALUATED INSULATION PRODUCTS							
Product	Material Standard ASTM C1289			DIMENSIONAL OFFERING		PLANTS	
	Түре	CLASS	GRADE	THICK (IN)	DIMENSIONS (FT)	Non-HVHZ (ASTM C1289)	HVHZ (TAS 110)
EnergyGuard™ Polyiso Insulation	II	1	2 or 3	0.5 to 4.6	4x4 or 4x8	GA-S, PA, TX, UT	GA-S, PA, TX, UT
EnergyGuard™ Tapered Polyiso Insulation	=	1	2 or 3	0.5 to 4.6	4x4	GA-S, PA, TX, UT	GA-S, PA, TX, UT
EnergyGuard™ NH Polyiso Insulation	11	1	2	0.5 to 4.6	4x4 or 4x8	GA-S, TX, UT	GA-S, TX, UT
EnergyGuard™ NH Tapered Polyiso Insulation	Ш	1	2 or 3	0.5 to 4.6	4x4 or 4x8	GA-S, TX, UT	GA-S, TX, UT
EnergyGuard™ RA	Ш	1	2 or 3	1.0 to 4.6	4x4 or 4x8	GA-L	N/A
EnergyGuard™ RA Tapered	=	1	2 or 3	1.0 to 4.6	4x4 or 4x8	GA-L	N/A
EnergyGuard™ Ultra Polyiso Insulation	=	2	2	0.5 to 4.6	4x4 or 4x8	GA-S, PA, TX, UT	GA-S, PA, UT
EnergyGuard™ Ultra Tapered Polyiso Insulation	II	2	2	0.5 to 4.6	4x4	GA-S, PA, TX, UT	GA-S, PA, UT
EnergyGuard™ NH Ultra Polyiso Insulation	Ш	2	2	0.5 to 4.6	4x4 or 4x8	GA-S, TX, UT	GA-S, TX, UT
EnergyGuard™ NH Ultra Tapered Polyiso Insulation	Ш	2	2	0.5 to 4.6	4x4 or 4x8	GA-S, TX, UT	GA-S, TX, UT
EnergyGuard™ Barrier Polyiso Insulation	II	2	2	0.5 to 4.6	4x4 or 4x8	GA-S, TX, UT	UT
EnergyGuard™ NH Barrier Polyiso Insulation	II	2	2	0.5 to 4.6	4x4 or 4x8	UT	UT
EnergyGuard™ RA Ultra	Ш	2	2 or 3	0.5 to 4.6	4x4 or 4x8	GA-L	N/A

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Table 1: Evaluated Insulation Products							
Product	Material Standard ASTM C1289			DIMENSIONAL OFFERING		PLANTS	
	Түре	CLASS	GRADE	THICK (IN)	DIMENSIONS (FT)	Non-HVHZ (ASTM C1289)	HVHZ (TAS 110)
EnergyGuard™ RA Ultra Tapered	П	2	2 or 3	0.5 to 4.6	4x4 or 4x8	GA-L	N/A
EnergyGuard™ HD Polyiso Cover Board	Ш	4	1	0.5	4x4 or 4x8	GA-S, PA, TX, UT	GA-S, PA, TX, UT
EnergyGuard™ HD Barrier Polyiso Cover Board	Ш	4	1	0.5	4x4 or 4x8	GA-S, TX, UT	GA-S, TX, UT
EnergyGuard™ NH HD Polyiso Cover Board	Ш	4	1	0.5	4x4 or 4x8	GA-S, TX, UT	GA-S, TX, UT
EnergyGuard™ NH HD Barrier Polyiso Cover Board	Ξ	4	1	0.5	4x4 or 4x8	GA-S, TX, UT	GA-S, TX, UT
EnergyGuard™ HD Plus Polyiso Cover Board	Ξ	4	2	0.5	4x4 or 4x8	GA-S, TX	GA-S, TX
EnergyGuard™ NH HD Plus Polyiso Cover Board	II	4	2	0.5	4x4 or 4x8	GA-S, TX	GA-S, TX
EnergyGuard™ RA HD	II	4	1	0.5	4x4 or 4x8	GA-L	GA-L
EnergyGuard™ Polyiso – HD Composite Insulation	Top: II Bottom: II	Top: 4 Bottom: 1	Top: 1 Bottom: 2 or 3	1.5 to 5.1	4x4 or 4x8	GA-S	GA-S
Ultra HD Composite Insulation	Top: II Bottom: II	Top: 4 Bottom: 2	Top: 1 Bottom: 2	1.5 to 5.1	4x4 or 4x8	GA-S	GA-S

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 does not include evaluation of wind resistance or fire classification.
- 5.2.1 Refer to roof system Florida Product Approval or Miami-Dade NOA for uplift resistance.
- 5.2.2 Refer to **FBC 1505** or **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.
- 5.2.3 If GAF Roof Insulation is not listed in the roof system Florida Product Approval, a request may be made to the Authority Having Jurisdiction for local-approval provided that wind resistance data (FBC 1504.3.1), external fire classification data (ASTM E108 or UL790 per FBC 1505 or FBC HVHZ 1516) and internal fire resistance data (NFPA 276 or UL1256 per FBC 1508.1 and FBC 2603.4.1.5), as applicable, is provided specifically with the subject roof cover.
- 5.3 All products in the roof assembly shall have quality assurance in accordance with F.A.C. Rule 61G20-3.



6. INSTALLATION:

EnergyGuard™ Roof Insulation shall be installed in accordance with GAF published installation instructions, coupled with attachment requirements set forth in the roof system Florida Product Approval or Miami-Dade NOA (for wind resistance) and fire classification listings.

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 product and production locations having met codified material standards.

9. QUALITY ASSURANCE ENTITY:

UL (QUA9625): (360) 817-5512; bsai.inspections@ul.com

- END OF PEER -



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