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EVALUATION REPORT

Firestone Building Products, LLC.
250 W. 96th Street
Indianapolis, IN 46240
(317) 575-7017

Evaluation Report F13900.01.10-R5
FL13451-R6
Date of Issuance: 01/25/2010
Revision 5: 09/29/2017

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 and Florida Building Code, Residential Volume. The products described herein have been evaluated for compliance with the **6th Edition (2017) Florida Building Code** sections noted herein.

DESCRIPTION: CLAD-GARD™ Roof Underlayments

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

CONTINUED COMPLIANCE: This Evaluation Report is valid until such time as 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. if the product changes or the referenced Quality Assurance documentation changes. Trinity|ERD requires a complete review of this Evaluation Report relative to updated Code requirements with each Code Cycle.

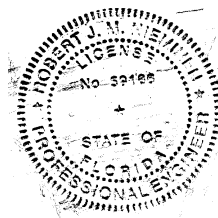
ADVERTISEMENT: The Evaluation Report number preceded by the words “Trinity|ERD Evaluated” may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, then it shall be done in its entirety.

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 09/29/2017. This does not serve as an electronically signed document.

CERTIFICATION OF INDEPENDENCE:

1. Trinity|ERD 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. Trinity|ERD 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 Trinity|ERD 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 COMPONENT EVALUATION:

1. SCOPE:

Product Category: Roofing
Sub-Category: Underlayment

Compliance Statement: **CLAD-GARD™ Roof Underlayments**, as produced by **Firestone Building Products**, have demonstrated compliance with the following sections of the **6th Edition (2017) 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	Property	Standard	Year
1507.1.1, Table 1507.1.1, 1507.2.4, 1507.2.9.2	Physical Properties	ASTM D1970	2015
TAS 110	Accelerated Weathering	TAS 110	2000

3. REFERENCES:

Entity	Examination	Reference	Date
ERD (TST6049)	ASTM D1970	2968.05.04-2	05/14/2004
ERD (TST6049)	ASTM D1970	2968.05.04-1(R1)	12/03/2004
ERD (TST6049)	ASTM D1970 / ASTM D4798	F31920.03.10	03/22/2010
PRI (TST5878)	ASTM D1970	BWR-522-02-01	03/16/2010
PRI (TST5878)	ASTM D1970	FBP-197-02-01	12/02/2014
UL, LLC. (QUA9625)	Quality Control	MLA	01/11/2010
UL, LLC. (QUA9625)	Quality Control	MLA	02/11/2011
UL, LLC. (QUA9625)	Quality Control	Service Confirmation	Exp. 09/11/2020

4. PRODUCT DESCRIPTION:

4.1 **Self-Adhering Underlayments:**

- 4.1.1 **CLAD-GARD™ SA-N** is a nominal 40-mil thick, self-adhering, woven polyethylene surfaced, SBS modified roof underlayment supplied in 36-inch wide x 67 ft long rolls. Meets **ASTM D1970**.
- 4.1.2 **CLAD-GARD™ SA-S** is a nominal 40-mil thick, self-adhering, woven polyethylene surfaced, high temperature, SBS modified roof underlayment supplied in 36-inch wide x 67 ft long rolls. Meets **ASTM D1970**.
- 4.1.3 **CLAD-GARD™ R** is a nominal 60-mil thick, self-adhering, fiberglass reinforced, textured-film surfaced, high temperature, SBS modified roof underlayment supplied in 36-inch wide x 67 ft long rolls. Meets **ASTM D1970**.
- 4.1.4 **CLAD-GARD™ SA-FR Underlayment** is a nominal 65-mil thick, self-adhering, film-surfaced, SBS modified roof underlayment supplied in 39.37-inch wide x 67.8 ft long rolls. Meets **ASTM D1970**.

5. LIMITATIONS:

- 5.1 This is a building code evaluation. Neither Trinity|ERD 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 HVHZ jurisdictions.
- 5.3 Fire Classification is not part of this Evaluation Report; refer to current Approved Roofing Materials Directory for fire ratings of this product.
- 5.4 **CLAD-GARD™ Roof Underlayments** 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.

5.5 Allowable Roof Covers:

TABLE 1: ROOF COVER OPTIONS						
Underlayment	Asphalt Shingles	Nail-On Tile	Foam-On Tile	Metal	Wood Shakes & Shingles	Slate
CLAD-GARD™ SA-N	Yes	No	No	No	Yes	Yes
CLAD-GARD™ SA-S	Yes	No	No	Yes	Yes	Yes
CLAD-GARD™ R	Yes	No	No	Yes	Yes	Yes
CLAD-GARD™ SA-FR Underlayment	Yes	No	No	Yes	No	No

5.6 Allowable Substrates:

5.6.1 Direct-Bond to Deck: Note: Firestone recommends priming the substrate with ASTM D41 primer if the final roof cover is not slated for installation within 24 hours.

- **CLAD-GARD™ SA-N** or **CLAD-GARD™ SA-S**: plywood, primed plywood, OSB, primed OSB, wood plank, primed wood plank, primed concrete.
- **CLAD-GARD™ R**: plywood, primed plywood
- **CLAD-GARD™ SA-FR Underlayment**: plywood.

5.6.2 Bond to Mechanically Attached Base Sheet:

- **CLAD-GARD™ SA-N, SA-S or R**: ASTM D226, Type I or II felt

5.6.3 Bond to Insulation:

- **CLAD-GARD™ SA-N** or **CLAD-GARD™ SA-S**: HailGard™, primed HailGard™, Dens Deck Prime; SECUROCK Gypsum-Fiber Roof Board.

5.6.4 Bond to Other Substrate Types:

- **CLAD-GARD™ SA-S**: gypsum-board, primed gypsum-board, masonry, primed-masonry, galvanized metal, primed galvanized metal.

5.7 Exposure Limitations:

CLAD-GARD™ SA-N or **SA-S** shall not be left exposed for longer than 90-days after installation.

CLAD-GARD™ R or **CLAD-GARD™ SA-FR Underlayment** shall not be left exposed for longer than 30-days after installation.

6. **INSTALLATION:**

6.1 **CLAD-GARD™ Roof Underlayments** shall be installed in accordance with **Firestone Building Products Company** published installation requirements subject to the Limitations set forth in Section 5 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 needed, with ASTM D41 primer.

6.3 Install self-adhering underlayment when ambient and surface temperatures are minimum 50°F and rising.

6.4 CLAD-GARD™ SA-N, CLAD-GARD™ SA-S, CLAD-GARD™ R or CLAD-GARD™ SA-FR Underlayment:

- 6.4.1 Shall be installed in compliance with the codified requirements for **ASTM D1970** underlayment in **FBC Table 1507.1.1** for the type of prepared roof covering to be installed.
- 6.4.2 Non-Tile Applications:
 - ✓ Prime the substrate if required in Section 5.6, or as required by Firestone Building Products Company.
 - ✓ Apply sheet parallel to the roof edge. Roll out a manageable length and peel back the first 3 ft of release film.
 - ✓ Adhere the exposed part to the substrate and unroll the remaining membrane as far as possible.
 - ✓ Once the entire length of membrane is in place, peel-off the release film diagonally while holding the membrane tight. Firmly roll the membrane into place to achieve a bond.
 - ✓ Horizontal seams should be minimum 3-inches, configured to shed water. Vertical seams should be 6-inches and staggered.
 - ✓ When installing at slopes above 8:12, back-nail within the overlap area at the top of the sheet at 12" o.c., ensuring fasteners are covered by the next overlapping sheet.
 - ✓ For Valleys and Ridges: Cut **CLAD-GARD™ underlayment** into 4 to 6 foot lengths. Peel the release paper and center sheet over valley or ridge. Drape and press sheet into place, working from the center of the valley or ridge in each direction. For valleys, apply the sheet starting at the lowest point and work upward.

7. BUILDING PERMIT REQUIREMENTS:

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

8. MANUFACTURING PLANTS:

Contact the noted QA agency for information on product locations covered for **F.A.C. 61G20-3** QA requirements. The following plants have qualified products under their respective physical properties specifications.

Plant	Specification	Product(s)
Drummondville, QC	ASTM D1970	CLAD-GARD™ SA-N
Drummondville, QC	ASTM D1970	CLAD-GARD™ SA-S
Tuscaloosa, AL	ASTM D1970	CLAD-GARD™ R
Indianapolis, IN	ASTM D1970	CLAD-GARD™ SA-FR Underlayment

9. QUALITY ASSURANCE ENTITY:

UL, LLC. – QUA9625; (847) 664-3281

- END OF EVALUATION REPORT -