



**EXTERIOR RESEARCH & DESIGN, LLC.**

*Certificate of Authorization #9503*

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**EVALUATION REPORT**

**Hunter Panels**

15 Franklin Street  
Portland, ME 04101  
**(717) 245-7000**

**Evaluation Report C32980.10.11-R5  
FL5968-R9**

**Date of Issuance: 10/18/2011**

**Revision 5: 08/30/2017**

**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. The product described herein has been evaluated for compliance with the **6<sup>th</sup> Edition (2017) Florida Building Code** sections noted herein.

**DESCRIPTION: H-Shield Roof Insulations**

**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 facimile seal appearing was authorized by Robert Nieminen, P.E. on 08/30/2017. This does not serve as an electronically signed document. Signed, sealed hardcopies have been transmitted to the Product Approval Administrator and to the named client.

**CERTIFICATION OF INDEPENDENCE:**

1. Exterior Research & Design, LLC. d/b/a 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. Exterior Research & Design, LLC. d/b/a 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:** Insulation

**Compliance Statement:** H-Shield Roof Insulations, as produced by Hunter Panels, have demonstrated compliance with the following sections of the 6<sup>th</sup> 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:**

<u>Section</u>	<u>Property</u>	<u>Standard</u>	<u>Year</u>
2603.3	Flame Spread	ASTM E84 <sup>1</sup>	2013
T1508.2	Physical Properties	ASTM C1289	2013
1520.1	Physical Properties	TAS 110	2000

**3. REFERENCES:**

<u>Entity</u>	<u>Examination</u>	<u>Reference</u>	<u>Date</u>
ERD (TST6049)	ASTM C1289 & TAS 110	C31640.04.10	04/06/2010
ERD (TST6049)	ASTM C1289 & TAS 110	C34020.04.11	04/04/2011
ERD (TST6049)	ASTM C1289 & TAS 110	C35990.05.11	05/31/2011
ERD (TST6049)	ASTM C1289 & TAS 110	C42950.09.13-1A-R1	03/04/2014
ERD (TST6049)	ASTM C1289 & TAS 110	C42950.03.14	03/26/2014
ERD (TST6049)	ASTM C1289 & TAS 110	C42950.02.14-1A-R2	04/16/2014
ERD (TST6049)	ASTM C1289	C46470.10.14-1A-1	10/03/2014
ERD (TST6049)	ASTM C1289	C46470.10.14-1A-2	10/03/2014
ERD (TST6049)	TAS 110	C46470.10.14-1A-3A	10/03/2014
ERD (TST6049)	ASTM C1289	C46470.01.15-1	01/08/2015
ERD (TST6049)	ASTM C1289	C46470.01.15-2	01/08/2015
FM Approvals (TST1867)	ASTM E84	3018331	08/30/2004
ITS (TST1585)	ASTM E84	100114954SAT-001 B	06/08/2010
ICC-ES (EVL2396)	2015 IBC/IRC Compliance	ESR-3174	12/01/2015
Miami-Dade (CER 1592)	HVHZ Compliance	14-0505.08	11/06/2014
UL, LLC (CER 9626)	UL1256	TJBX.R18846	07/03/2013
UL, LLC (QUA9625)	Quality Control	Inspection Report, R18846	07/24/2017

**4. PRODUCT DESCRIPTION:**

The following insulations are mechanically attached or adhered to Approved substrates using fasteners, stress plates and adhesives, as outlined in the Roof System Product Approval.

- 4.1 **H-Shield** is an ASTM C1289, Type II, Class 1, Grade 2 or Grade 3 board stock roof insulation comprised of a polyisocyanurate core faced on both sides with organic felt, glass reinforced facers. Thickness ranges from 1" to 4" and available boards sizes are 4x4 ft and 4x8 ft.
- 4.2 **H-Shield (Tapered)** is an ASTM C1289, Type II, Class 1, Grade 2 or Grade 3 tapered board stock roof insulation comprised of a polyisocyanurate core faced on both sides with organic felt, glass reinforced facers. Thickness ranges from 0.5" to 4" and available boards sizes are 4x4 ft.
- 4.3 **H-Shield F** is an ASTM C1289, Type I, Class 1, Grade 2 or Grade 3 board stock roof insulation comprised of a polyisocyanurate core faced on both sides with a tri-laminate foil facer. Thickness ranges from 1" to 4" and available boards sizes are 4x4 ft and 4x8 ft.

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

- 4.4 **H-Shield-NB** is an ASTM C1289, Type V board stock roof insulation comprised of a polyisocyanurate core faced on one side with a organic felt, glass reinforced facer and the other side with 7/16" or 5/8" thick oriented strand board (OSB) or 5/8" or 3/4" thick CDX plywood. Thickness ranges from 1.5" to 4.5" and available boards sizes are 47.5 x 95.5 inch or and 4 x 8 ft. **H-Shield-NB with OBS top surface is not for use in HVHZ.**
- 4.5 **H-Shield-WF** is an ASTM C1289, Type IV board stock roof insulation comprised of a polyisocyanurate core faced on one side with an organic felt, glass reinforced facer and the other side with 1/2" thick asphalt-coated high density wood fiberboard. Thickness ranges from 1.5" to 4.5" and available boards sizes are 47.5 x 95.5 inch or and 47.5 inch x 8 ft.
- 4.6 **H-Shield-WF (Tapered)** is an ASTM C1289, Type IV tapered board stock roof insulation comprised of a polyisocyanurate core faced on one side with an organic felt, glass reinforced facer and the other side with 1/2" thick asphalt-coated high density wood fiberboard. Thickness ranges from 1.0" to 4.0" and available boards sizes are 4 x 4 ft
- 4.7 **H-Shield CG** is an ASTM C1289, Type II, Class 2, Grade 2 or Grade 3 board stock roof insulation comprised of a polyisocyanurate core faced on both sides with a coated polymer-bonded glass fiber mat. Thickness ranges from 1" to 4" and available boards sizes are 4 x 4 ft and 4 x 8 ft.
- 4.8 **H-Shield CG (Tapered)** is an ASTM C1289, Type II, Class 2, Grade 2 or Grade 3 tapered board stock roof insulation comprised of a polyisocyanurate core faced on both sides with a coated polymer-bonded glass fiber mat. Thickness ranges from 1" to 4" and available boards sizes are 4 x 4 ft and 4 x 8 ft.
- 4.9 **H-Shield Premier** is an ASTM C1289, Type II, Class 2, Grade 2 or Grade 3 board stock roof insulation comprised of a polyisocyanurate core faced on both sides with a heavy duty coated glass facer. Thickness is 1" and available boards size is 4 x 8 ft.
- 4.10 **H-Shield HD and H-Shield HD90** are ASTM C1289, Type II, Class 4, Grade 1 board stock roof insulations comprised of a high density polyisocyanurate core faced on both sides with a coated polymer-bonded glass fiber mat. Thickness is 1/2" and available board size is 4x8 ft.
- 4.11 **Cool-Vent** is a venting composite insulation board consisting of **H-Shield** (ASTM C1289, Type II, Class 1, Grade 2 board stock roof insulation) with a middle layer of solid wood spacers and a top layer of APA/TECO rated 7/16" or 5/8" thick oriented strand board (OSB) or 5/8" or 3/4" thick CDX plywood. Thickness ranges from 2.5" to 6" and available board size is 4x8 ft. **Cool-Vent with OBS top surface is not for use in HVHZ.**
- 4.12 **Cool-Vent II** is a venting composite insulation board consisting of **H-Shield-NB** (ASTM C1289, Type V board stock roof insulation) with a middle layer of wood spacers and a top layer of APA/TECO rated 7/16" or 5/8" thick oriented strand board (OSB) or 5/8" or 3/4" thick CDX plywood. Thickness ranges from 3" to 6" and available boards size is 4x8 ft. **Cool-Vent II with OBS top surface is not for use in HVHZ.**
- 4.13 **H-Shield HD Composite** is a rigid, closed cell, polyisocyanurate foam board composite comprising H-Shield HD used as the top side facer, a foam core identical to H-Shield, and a glass reinforced organic felt bottom facer. Thickness ranges from 2.0" to 4.5" and available boards size is 4x4 or 4x8 ft.

## 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 **H-Shield NB, Cool-Vent and Cool-Vent II with OSB as the top surface are not for use in FBC HVHZ jurisdictions.**
- 5.3 Refer to roof system Product Approval (for uplift resistance) and an approved Roofing Materials Directory (for fire ratings; e.g., *UL TJBX.R18846*) for use and installation of **H-Shield Roof Insulation**. If H-Shield Roof Insulation is not listed in the roof system Product Approval, a request may be made to the Authority Having Jurisdiction for local-approval provided that **NFPA 276** or **UL1256** internal fire; **ASTM E108, UL790** or **Testing Application Standard TAS 114, Appendix A** external fire and/or **FM 4474, UL1897** or **Testing Application Standard TAS 114** wind uplift data, as applicable, is provided specifically with the subject roof cover.

5.4 All products in the roof assembly shall have quality assurance in accordance with the **F.A.C. Rule 61G20-3**.

**6. INSTALLATION:**

6.1 **H-Shield Roof Insulation** shall be installed in accordance with **Hunter Panels'** published installation instructions, coupled with attachment requirements set forth in the roof system Product Approval documentation and approved Roofing Materials Directory (for fire ratings).

6.2 The maximum board size for bonded applications is 4 x 4 ft.

**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 named QA entity for manufacturing facilities covered by **F.A.C. Rule 61G20-3 QA** requirements. The following plants have qualified under **ASTM C1289-13**.

<b>Plant</b>	<b>Product(s)</b>
Franklin Park, IL	H-Shield, H-Shield CG, H-Shield F, H-Shield HD Composite, H-Shield NB
Kingston, NY	H-Shield, H-Shield CG, H-Shield F, H-Shield HD, H-Shield NB, H-Shield WF
Lake City, FL	H-Shield, H-Shield CG, H-Shield F, H-Shield HD
Smithfield, PA	H-Shield, H-Shield CG, H-Shield F, H-Shield HD, H-Shield HD90
Tooele, UT	H-Shield, H-Shield CG, H-Shield F, H-Shield HD, H-Shield HD Composite, H-Shield Premier

**9. QUALITY ASSURANCE ENTITY:**

UL, LLC– QUA9625; (847) 664-3281

**- END OF EVALUATION REPORT -**