



**EXTERIOR RESEARCH & DESIGN, LLC.**

*Certificate of Authorization #9503*  
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**EVALUATION REPORT**

**Skyline Building Systems, Inc.**  
261185 Wagon Wheel Way  
Rocky View, Alberta T4A 0E2 Canada  
**(403) 277-0700**

**Evaluation Report S43670.12.12-R3**  
**FL7791-R6**  
**Date of Issuance: 12/17/2012**  
**Revision 3: 10/04/2017**

**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 and 6<sup>th</sup> Edition (2017) Florida Building Code, High Velocity Hurricane Zone (HVHZ)** sections noted herein.

**DESCRIPTION: DecTec® Waterproofing Systems**

**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

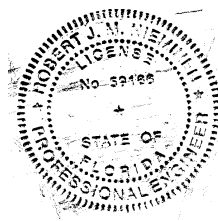
**ADVERTISEMENT:** The Evaluation Report number preceded by the words “Trinity|ERD Evaluated” may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, then it shall be done in its entirety.

**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 3, plus a 1-page Appendix.

**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 10/04/2017. This does not serve as an electronically signed document.

**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 SYSTEMS EVALUATION:**

**1. SCOPE:**

**Product Category:** Roofing

**Sub-Category:** Waterproofing

**Compliance Statement:** DecTec® Waterproofing Systems, as produced by Skyline Building Systems, Inc., 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>
1504.3.1	Wind	FM 4474	2011
1504.7	Impact	FM 4470	2012
1507.13.2, TAS 110	Physical Properties	ASTM D4434	2012
1523.6.2	Wind, Impact	TAS 114	2011

**3. REFERENCES:**

<u>Entity</u>	<u>Examination</u>	<u>Reference</u>	<u>Date</u>
ERD (TST6049)	FM 4470/4474/TAS 114	S4610.11.06	11/10/2006
ERD (TST6049)	Physical Properties	S44790.08.13	08/26/2013
ERD (TST6049)	Physical Properties	SC7935.05.15-R1	06/01/2015
ERD (TST6049)	Physical Properties	S44790.07.14-R2	06/01/2015
ICC-ES (EVL2396)	2006 IBC/IRC Compliance	ESR-2413	04/01/2017
UL, LLC. (QUA9625)	Quality Control	MLA, File R16979	06/20/2012
UL, LLC. (QUA9625)	Quality Control	Inspection Report; R8992	07/06/2017

**4. PRODUCT DESCRIPTION:**

This Evaluation Report covers DecTec® Waterproofing Systems installed in accordance with Skyline Building Systems, Inc. published installation instructions and the Limitations / Conditions of Use herein.

- DecTec® Select is a nominal 60-mil (1.5 mm) or 80 mil (2.0 mm) thick, polyester scrim reinforced, single-ply roof membrane coated with a proprietary PVC compound; meets ASTM D4434-15, Type III.
- DecTec® Guardian is a nominal 60-mil (1.5 mm) thick, fiberglass mat reinforced, single-ply roof membrane coated with a proprietary PVC compound; meets ASTM D4434-15, Type II.

**5. LIMITATIONS:**

**5.1 GENERAL:**

- 5.1.1 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.
- 5.1.2 Fire classification is not part of this Evaluation Report; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
- 5.1.3 The roof system evaluation herein 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.
- 5.1.4 All products listed herein shall have quality assurance audit in accordance with the FAC Rule 61G20-3.

## **5.2 FBC NON-HVHZ JURISDICTIONS:**

- 5.2.1 The maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with **FBC Chapter 16**. No rational analysis is permitted for these systems.
- 5.2.2 For re-roof (tear off), the existing deck surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing in accordance with **ASTM E907, FM Loss Prevention Data Sheet 1-52 or Testing Application Standard TAS 124** shall be conducted on mock-ups of the proposed new roof assembly.
- 5.2.3 For edge securement, refer to **FBC 1504.5** or **FBC 1507.2.9.3**, as deemed applicable by the Authority Having Jurisdiction

## **5.3 HVHZ JURISDICTIONS:**

- 5.3.1 Direct-bonding to wood decks is not permitted in **FBC HVHZ** jurisdictions. Only the concrete deck assembly in Appendix 1 is permissible for use in **FBC HVHZ**.
- 5.3.2 All attachment and sizing of perimeter nailers, metal profile and/or flashing termination designs shall conform to **Roofing Application Standard RAS 111** and applicable wind load requirements.
- 5.3.3 The maximum design pressure (MDP) limitation listed shall be applicable to all roof pressure zones (i.e., field, perimeters and corners), as determined in accordance with **FBC Section 1620** or **Roofing Application Standard RAS 128**. Neither rational analysis, nor extrapolation is permitted for enhanced attachment at enhanced pressure zones (i.e., perimeters, corners and extended corners).
- 5.3.4 For re-roof (tear off), the existing deck surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing in accordance with **Testing Application Standard TAS 124** shall be conducted on mock-ups of the proposed new roof assembly.

## **6. INSTALLATION:**

- 6.1 **DecTec™ Waterproofing Systems** shall be installed in accordance with published installation instructions by a contractor approved by **Skyline Building Systems, Inc.**, subject to the Limitations / Conditions of Use noted herein.
- 6.2 System attachment requirements for wind load resistance are set forth in Appendix 1. “MDP” = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads, and reflects the ultimate passing pressure divided by 2 (the 2 to 1 margin of safety per **FBC 1504.9** and **TAS 114** has already been applied). Refer to **FBC 1609 (non-HVHZ jurisdictions)** or **FBC HVHZ 1620 or Roofing Application Standard RAS 128 (HVHZ jurisdictions)** for determination of design wind loads.

## **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.

## **9. QUALITY ASSURANCE ENTITY:**

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

**- THE ONE (1) PAGE THAT FOLLOWS FORMS PART OF THIS EVALUATION REPORT -**

**APPENDIX 1: ATTACHMENT REQUIREMENTS FOR WIND UPLIFT RESISTANCE**

**The following notes apply to the systems outlined herein:**

1. The roof system evaluation herein 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. Load resistance of the roof deck shall be documented through proper codified and/or FBC Approval documentation.
2. The maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with **FBC 1609 (non-HVHZ jurisdictions)** or **FBC HVHZ 1620 or Roofing Application Standard RAS 128 (HVHZ jurisdictions)**, and no rational analysis is permitted.
3. For re-roof (tear off), the existing deck surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing in accordance with **ANSI/SPRI IA-1, ASTM E907, FM Loss Prevention Data Sheet 1-52 or Testing Application Standard TAS 124** shall be conducted on mock-ups of the proposed new roof assembly.
4. Direct-bonding to wood decks is not permissible in FBC HVHZ jurisdictions.
5. "MDP" = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads. Refer to **FBC 1609 (non-HVHZ jurisdictions)** or **FBC HVHZ 1620 or Roofing Application Standard RAS 128 (HVHZ jurisdictions)** for determination of design wind pressures.

**TABLE 1: WOOD DECKS – NEW CONSTRUCTION OR RE-ROOF (TEAR-OFF)**  
**SYSTEM TYPE F: NON-INSULATED, BONDED WATERPROOFING**  
**NOT FOR USE IN HVHZ**

System No.	Deck	Deck Waterproofing		MDP (psf)
		Membrane	Application	
W-1	Nominal 5/8-inch, tongue-and-groove (T&G), CDX plywood glued with LePage Bulldog Grip PL 400 Heavy-Duty Sub-Floor Adhesive and attached 6-inch o.c. to structural supports spaced 24-inch o.c. using #8 wood screws. Deck joints are sealed with DecPatch compound.	DecTec™ Guardian or DecTec™ Select	DecTec™ SBA 100 in a two-sided application at 1.0 gal/square on the substrate and 0.5 gal/square on the membrane for a combined rate of 1.5 gal/square. Or DecTec™ WBA 100 at 0.7 gal/square to the substrate only.	-135.0 <b>(NO HVHZ)</b>

**TABLE 2: CONCRETE DECKS – NEW CONSTRUCTION OR RE-ROOF (TEAR-OFF)**  
**SYSTEM TYPE F: NON-INSULATED, BONDED WATERPROOFING**

System No.	Deck	Deck Waterproofing		MDP (psf)
		Membrane	Application	
C-1	Min. 2,500 psi structural concrete	DecTec™ Guardian or DecTec™ Select	DecTec™ SBA 100 in a two-sided application at 1.25 gal/square on the substrate and 0.50 gal/square on the membrane for a combined rate of 1.75 gal/square.	-630.0