

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION RC-247

Effective June 1, 2010

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation in **May 2014**.*

*This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.*

*This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.*

**Snap-n-Lock Composite Roof Panels**, manufactured by:

**Structall Building Systems, Inc.**  
**350 Burbank Road**  
**Oldsmar, Florida 34677**  
**Telephone: (813) 855-2627**

will be accepted for use in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the product evaluation and with design drawings that are referenced in this evaluation report.

## PRODUCT DESCRIPTION

**General:** The Snap-n-Lock Composite Roof Panels are laminated sandwich panels consisting of aluminum facings adhered at the factory to both faces of an expanded polystyrene (EPS) foam plastic core. These panels are available in a nominal thickness of 3", 4" and 6" with a weight of 0.96, 1.03 and 1.19 psf respectively. The panels are 48" wide and come in different lengths up to 18, 21 and 23 feet respectively. The longitudinal edges of the panels are designed such that each panel interlocks with the adjacent panel.

**Material:** The panel core material is 1.0 pcf (16.0 kg/m<sup>3</sup>) nominal density, Type I, expanded polystyrene foam plastic board.

The panel facing material on both sides of the panel is 3105-H254 aluminum with a base metal thickness of 0.030 inch (0.56 mm).

The adhesive utilized to bond the facings to the core is the Morad 640, a Type II, Class 2, adhesive manufactured by Rohm and Haas.

**Product Identification:** Each Snap-N-Lock panel is identified by a label bearing the company name (**Structall Building Systems, Inc.**) and address, the product name, the panel dimensions, and the name of the inspection agency (**CI Professional Services**).

## LIMITATIONS

**General Requirements:** This report is for the panels themselves, the structural adequacy of the supporting structure(s) must be evaluated separately.

**Roof Slope:** The roof panels shall be installed such that they have a minimum roof slope as specified in the notes below Table A.

**Design Wind Speeds:** The design wind speeds are that these panels have been evaluated for are 110 mph, 120 mph and 130 mph Exposure C.

## INSTALLATION INSTRUCTIONS

### 3", 4" and 6" Snap-n-Lock Composite Roof Panels For use in 110, 120 and 130 mph Wind Speed Areas with Exposure C

**General Requirements:** The panels must be installed as noted in this report and per the manufacturer's installation instructions.

**Panel Span:** The allowable panel spans shall be as noted in the following table:

**Table A: Allowable Panel Spans based on Wind Speed** <sup>1,2,3,4</sup>

ROOF PANEL	CONDITION					
	PATIO ENCLOSURE			CANOPY or OPEN STRUCTURE		
	110 MPH	120 MPH	130 MPH	110 MPH	120 MPH	130 MPH
3"	9'-0"	7'-0"	N/A	12'-0"	11'-0"	10'-0"
4"	11'-0"	9'-0"	7'-0"	14'-0"	13'-0"	12'-0"
6"	13'-0"	11'-0"	10'-0"	16'-0"	15'-0"	13'-0"

Notes:

1. Assumed 2'-0" overhang.
2. Span length is defined as the distance from centerline of support to centerline of support.
3. For patio enclosures, values are shown for the following:
  - a. Monoslope roofs with slope between 3 and 10 degrees.
  - b. Gable style roofs with slope between 27 and 45 degrees.
4. For canopies, values are shown for monoslope roofs with slope less than 7.5 degrees.

**Panel Connection:** An indefinite number of panels may be interlocked together as noted in Detail A of this report.

**Panel Support:** The panels shall be connected to the existing structure in accordance to Detail B of this report and shall be supported on a structural beam in accordance to Detail C of this report. Any combination of these support systems is permitted. When Detail B is utilized, the existing structure (wood frame application), as noted in the detail, shall have a minimum 2x structural wood framing member or as required to ensure a minimum of 1  $\frac{3}{8}$ " thread embedment of the lag bolt(s).

**Miscellaneous:** All lag bolts and screws shall be provided with lead holes having a diameter not greater than 70% of the thread diameter of the bolt or screw.

All lag bolts and screws shall be inserted into lead holes by turning and under no circumstance shall they be installed by driving with a hammer.

All steel fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC) and the Texas Revisions.

All sheet metal screws shall be stainless steel and corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC) and the Texas Revisions.

### Installation Details:



