



Product Evaluation

RC247 | 0317

Engineering Services Program

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 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.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: RC-247

Effective Date: March 1, 2017

Re-evaluation Date: January 2021

Product Name: Snap-N-Lock EPS Foam Core Roof Panels

Manufacturer: Structall Building Systems, Inc.
350 Burbank Road
Oldsmar, FL 34677
(813) 855-2677

General Description:

The EPS Foam Core Snap-n-Lock Roof Panels are laminated sandwich panels consisting of either aluminum or steel facings adhered to both faces of an expanded polystyrene (EPS) foam plastic core. The panels are available in a nominal thickness of 3", 4", and 6". The panels are 48" wide and come in lengths up to 23'. The longitudinal edges of the panels are designed such that each panel interlocks with the adjacent panel.

Panel Core: The panel core material is 1.0 pcf nominal density, Type I, expanded polystyrene foam plastic board complying with ASTM C578

Panel Facing: The panel facing material on both sides of the panel is one of the following:

- 0.024" aluminum, 3105-H254
- 0.030" aluminum, 3105-H254
- 26-gauge steel conforming to ASTM A653 with a G90 hot-dip galvanized coating.

Panel Facing: The adhesive utilized to bond the facings to the core is MofAd M-640 by Rohm and Hass.

Product Identification: Each Snap-N-Lock EPS Foam Core Roof Panel is identified by a label bearing the company name (Structall Building Systems), address, the product name, and the panel dimensions.

Limitations:

General Requirements: This product evaluation report is for the Snap-N-Lock EPS foam core roof panels only.

The evaluation of the structural adequacy of the supporting structure (host structure, columns, beams, walls, etc.) is separate from this evaluation report.

The evaluation of the foundation is separate from this evaluation report.

The roof panels must not be used as a diaphragm to transfer lateral loads.

Roof Slope: Install the roof panels such that they have a minimum roof slope of 1/4" per foot.

Overhangs: Limits on the overhang at the front end of the panel and at the sides of the last panels are as specified on the approved drawings.

Approved Drawings: Install the Snap-N-Lock EPS Foam Core roof panels in accordance with Structall Building Systems EPS Foam Core Roof Panels-Metal Skin, Drawing No. 15-2592, sheets 1 through 2 of 2, dated September 16, 2015, signed and sealed by Frank L. Bennardo, P.E. on September 17, 2015. This report refers to the stated drawings as the approved drawings. A copy of the approved drawings must be available at the job site.

Installation:

Design and Installation Requirements: Fabricate, identify, and erect the Snap-N-Lock EPS Foam Core Roof Panels in accordance with this evaluation report, the manufacturer's published installation instructions, the approved drawings, and the applicable building codes. In the event of a conflict between manufacturer's published installation instructions and this evaluation report, this evaluation report will govern.

A Texas licensed professional engineer appointed as a qualified windstorm engineer must design and inspect structures built using the Snap-N-Lock EPS Foam Core Roof Panels. The approved drawings provide allowable roof spans and specifications on minimum connection requirements. Base the requirements for the design of the Snap-N-Lock EPS Foam Core Roof Panels on the tables and details specified on the approved drawings. A Texas licensed engineer must seal and date the design drawings. The design drawings must reference the appropriate edition of the wind load standard (ASCE 7) used based on the current building specifications adopted by TDI. Reference the basic wind speed and the exposure category used for the design. The engineer must carefully evaluate the existing site conditions, the host structure, and the supporting elements, and design those elements that are outside of the scope of the design drawings. The engineer must consider the additional load that must be carried by the supporting structure. A load path to the foundation must be provided.

Panel Span: The allowable panel spans are noted on the approved drawings.

Number of Interlocking Panels: An infinite number of panels may be interlocked.

Wall Construction of Host Structure: Secure the Snap-N-Lock EPS Foam Core Roof Panels to the following types of wall construction as noted on the approved drawings:

- Pre cast concrete, cast in place concrete (minimum 3,192 psi),
- Hollow concrete masonry units (CMU) (minimum 1,500 psi),
- Wood, minimum Southern Yellow Pine dimensional lumber (S.G.=0.55).

Construction of Supporting Elements (Columns or Beams): Secure the Snap-N-Lock EPS Foam Core Roof Panels to the following types of supporting element construction as noted on the approved drawings:

- Wood, minimum Southern Yellow Pine dimensional lumber (S.G.=0.55).
- Aluminum, 6063-T5

Allowable Design Pressure: The allowable design pressure is a function of the deflection limit, the skin construction, the thickness of the panels, and the clear span of the panels. Refer to the approved drawings for the allowable design pressure. The maximum allowable design pressure is ± 95 psf (live load or uplift loading).

Anchorage: Anchor the panels to the host structure and to supporting elements in accordance with the approved drawings. When anchoring the panels, follow the mounting details on the drawings.

Note: Keep the manufacturer's installation instructions and the approved drawings at the job site during the installation. Use corrosion resistant fasteners as specified in the IRC, the IBC, and the Texas Revisions.