

Product Evaluation

RWA07 | 0819

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: RWA-07

Effective Date: April 1, 2019

Revised: August 1, 2019

Re-evaluation Date: April 2023

Product Name: DuroSpan 12.0 x 1.25R 150 Series FRP Light Transmitting Roof or Wall Panel
Installed over Steel Framing, Non-Impact Resistant

Manufacturer: Enduro Composites, Inc.
16602 Central Green Blvd.
Houston, Texas 77032
(800) 231-7271

General Description:

The DuroSpan 12.0 x 1.25R 150 Series FRP is a glass fiber reinforced light transmitting roof or wall panel. The panel is bi-directional glass fiber reinforced Iso-Polyester DLC2 formulation (150 Series). The panel has a 36" coverage with 1-1/4" tall major ribs at 12" on center.

Limitations:

Roof and Wall Framing: The roof or wall panel must be installed over minimum 16-gauge steel framing.

New Roof/Wall Framing Attachment: The roof or wall framing must meet or exceed the uplift requirements of the IRC or IBC and must be installed as required for resistance to wind loads.

Design Wind Pressures: The design wind pressure uplift load resistance is as specified in Table 1.

Roof Slope: The roof panels may be installed on roofs with a minimum roof slope of 1/2:12 if sealant is used on the panel side laps. If sealant is not used on panel side laps, then the minimum roof slope is 3:12.

Panel Combustibility Classification: Class CC2 (See IBC Table 2607.4)

Wall Panel Limitations:

Height Limitation: No more than 75 feet above grade plane.

Panels must not be installed in: Groups A-1, A-2, H, I-2, I-3 (IBC Section 2607.1)

Panels must not be installed in: Groups H, I-2, I-3 (IBC Section 2609.1)

Roof Panel Limitations:

Panel Separation: Panels must be separated from each other by not less than 4 ft measured in a horizontal plane unless the building meets one of the exceptions in IBC Section 2609.2.

Impact Resistance: These panels do not satisfy the Texas Department of Insurance's criteria for protection from windborne debris. An impact protective system must be provided when installed in areas where windborne debris protection is required.

Table 1: Attachment of DuroSpan 12.0 x 1.25R 150 Series FRP Roof or Wall Panel to Minimum 16-gauge Steel Framing

Design Wind Pressure (psf)	Steel Framing	Fastener Pattern	Fastener Spacing
-33.8; +31.2	Minimum 16-Gauge at 5'-0" on center	7"-5"-7"-5"-7"	5'-0" on center

Installation:

General: The roof or wall panels must be installed in accordance with the manufacturer's recommended installation instructions and this evaluation report.

Steel Framing: Minimum 16-gauge steel. The steel framing must be installed to meet or exceed the wind uplift requirements of the IRC or IBC.

Underlayment: N/A

Attachment of Roof or Wall Panels to the Steel Framing: The roof or wall panels must be secured to the steel framing with one (1) No. 12-14 x 1-1/2" HWH SX5 fastener with 1-1/8"

diameter bonded washer. The fastener pattern and the spacing along the length of the panel must be as specified in Table 1. The fasteners must be long enough to ensure a minimum penetration of 3 pitches of thread below the steel framing.

Panel Side Laps: The panel side laps are fastened together with one (1) 3/8" x 1-1/4" Grommet at 18" on center.

Panel End Laps to the Steel Framing: The roof or wall panels must be secured to the steel framing with one (1) No. 12-14 x 1-1/2" HWH SX5 with 1-1/8" diameter bonded washer at a 7"-5"-7"-5"-7" fastener pattern. The fasteners must be long enough to ensure a minimum penetration of 3 pitches of thread below the steel framing.

Trims, Closures, and Accessories: Components, such as the eave trim, rake trim, ridge trim, hip trim, and valley trim must be installed as required by the manufacturer.

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