

## Product Evaluation

RC597 | 0224

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-597

**Effective Date:** February 1, 2024

**Re-evaluation Date:** February 2028

**Product Name:** Tuff Rib Steel Roofing Panels Installed over a Plywood Deck

**Manufacturer:** Pro Window & Door  
6500 Forbing Road  
Suite 100  
Little Rock, AR 72209  
(501) 663-3611

**General Description:** The Tuff Rib metal roofing panel is a minimum 26-gauge galvanized steel panel that has a coverage width of 36". The metal roofing panels have a 3/4" rib height. The metal roofing panel has a yield strength of 80,000 psi.

This product evaluation report is for Tuff Rib steel roofing panels that are secured to a nominal 15/32" plywood deck. A thicker plywood deck may be used; however; the design pressure rating for the metal panels will be as specified in this evaluation report.

**Limitations:**

**Roof Deck:** The metal roofing panels must be installed over a minimum 15/32" plywood deck.

**New Roof Deck Attachment:** The roof deck must meet or exceed the uplift requirements of the IRC or the IBC and must be as required for resistance for wind loads.

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

**Design Pressure:** The design pressure uplift load resistance must be as specified in Table 1.

**Table 1.** Attachment of Tuff Rib 26-gauge Steel Roofing Panels to Minimum 15/32" Plywood Deck

Design Wind Pressure (psf)	Panel Fastener Pattern	Panel Fastener Spacing
-60.0	9" on center	24" on center

**Installation over Existing Roof Covering:** Installation over an existing roof covering is limited to a maximum of one existing layer of composition shingles, wood shingles or shakes, built-up roofing, or roll roofing applied over an existing solid roof deck of minimum 15/32" plywood. Note: Inspection of existing roof deck must be made prior to the installation of the roofing panels. The condition of the existing roof deck must be acceptable to receive the metal roofing panels before roof panel installation can begin.

### Installation:

**General Installation Requirements:** The metal roofing panels must be installed in accordance with the manufacturer's installation instructions and this product evaluation.

**Underlayment:** A minimum of one layer of No. 30 (Type II) asphalt felt or equivalent must be used. The underlayment used must comply with one or more of the following: ASTM D 226, ASTM D 4869, or ASTM D 1970. The underlayment must be installed with minimum 2" side laps and 2" end laps. The underlayment must be applied with corrosion-resistant fasteners in accordance with the manufacturer's installation instruction. Fasteners must be applied along the overlaps not farther apart than 36" on center.

**Attachment of Steel Roof Panels to Plywood Deck:** Secure the panels to the plywood deck with No. 1/4" x 1" long Woodbinder Type 17 tip screws with an EDPM washer. The fasteners must be long enough to ensure a minimum penetration of 1/4" below the roof deck. Locate the fasteners in the valley next to each major rib, spaced approximately 9" on center across the width of the panel. Each line of fasteners is located a maximum of 24" on center along the length of the panel.

**Panel Side Laps:** The overlaps of the panels are secured together with 1/4" x 3/4" Steelbinder Drill Point tip screw with an integral EDPM gasket. The fasteners are located 24" on center along the length of the overlap.

**Panel Ends:** As required by the manufacturer.

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

**Alternative Fasteners:** Alternative fasteners of equal or greater strength may be substituted.

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