

## Product Evaluation

RC336 | 0720

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-336

**Effective Date:** July 1, 2020

**Re-evaluation Date:** July 2024

**Product Name:** 26-gauge PBR Steel Roofing Panels Installed Over a Plywood Roof Deck

**Manufacturer:** Schulte Building Systems, Inc.

17600 Badtke Road

Hockley, TX 77447

(281) 304-6111

### General Description:

The PBR panel is minimum 26-gauge galvalume steel with an optional paint finish. The 26-gauge metal roof panels have an actual coverage of 36". Each metal roof panel has ribs that are 1-1/4" deep. The metal roofing panels conform to ASTM A792, with a minimum 80,000 psi yield point.

### Limitations:

**Roof Framing:** The metal roof panels must be installed over a minimum 15/32" thick plywood deck.

**New Roof Framing Attachment:** The roof framing must meet or exceed the uplift requirements of the IRC or IBC and must be installed in a manner to resist wind loads as required.

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

**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 side laps. If sealant is not used on the panel side laps, then the minimum roof slope is 3:12.

**Installation Over an 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 the existing roof deck must be made prior to the installation of the roof panels. The condition of the existing roof deck must be acceptable to receive the metal roofing panels before the metal roofing panel installation proceeds. Underlayment is not required to be installed.

**Table 1** Attachment of Minimum 26-gauge PBR Steel Roof Panels to Minimum 15/32" Thick Plywood Deck

Design Wind Pressure (psf)	Panel Fastener Pattern	Panel Fastener Pattern Spacing
-56.0	12"-12"-12"	2'-0" on center
-176.0	7"-5"-7"-5"-7"	1'-0" on center

**Installation:**

**General Installation Requirements:**

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

**Panels:** The metal roofing panels must be secured to the roof covering as specified in Table 1 and in accordance with this section.

**Underlayment:** A minimum of one layer of No. 30 (Type II) asphalt felt 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 per the manufacturer's installation instructions and the IRC and the IBC.

**Attachment of Metal Roof Panels to the Roof Deck:** The metal roof panels must be secured to the roof substrate in the following manner:

**Roof Panels to Plywood Deck:** Minimum No. 10-14 x 1-1/2" WoodTite with sealing washer. The fasteners must be long enough to ensure a minimum penetration of 1/4" below the roof deck. (Note: If the metal roof panels are installed over an existing roof covering, then the fastener length must be increased so that the fasteners are long enough to ensure a minimum penetration of 1/4" below the existing plywood roof deck). The required quantity of fasteners as well as the maximum allowable spacing of the fasteners is specified in Table 1.

**Panel Side Laps:** The panels are stitched together with minimum 1/4-14 x 7/8" Lap Tek screws with a sealing washer. The fasteners must be spaced a maximum of 20" on center along the length of the side lap.

**Panel Ends:** Minimum No. 10-14 x 1-1/2" WoodTite with sealing washer at 7"-5"-7"-5"-7" fastener pattern. The fasteners must be long enough to ensure a minimum penetration of 1/4" below the roof deck. Refer to Figure 1 for an illustration of the fastener pattern.

**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.

**Alternative Fasteners:** An alternative panel fastener may be used only if the pullout values into 15/32" plywood are equivalent or better.

**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.

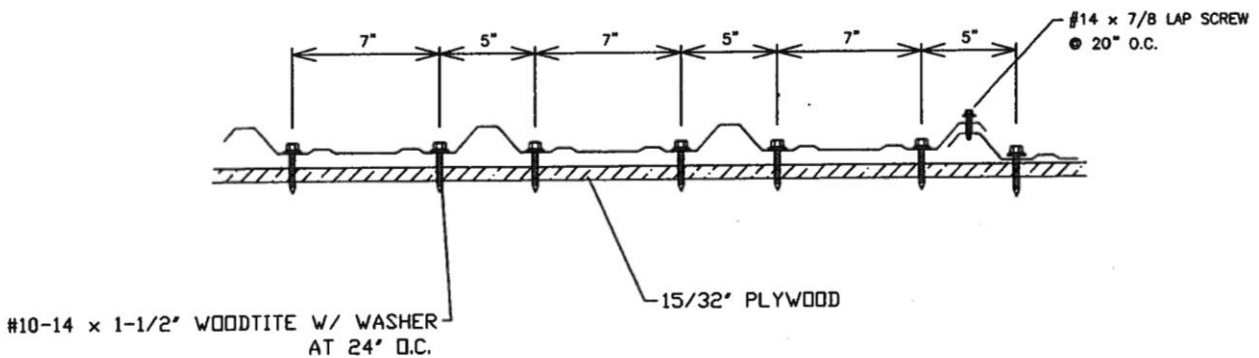


Figure 1. Fasteners at Panel Ends