

Product Evaluation

RC400 | 1023

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-400

Effective Date: October 1, 2023

Re-evaluation Date: October 2027

Product Name: SP 100 24-Gauge Steel Roof Panels Installed Over a Plywood Deck

Manufacturer: Pedco Roofing, Inc.
1426 Brittmoore Road
Houston, TX 77043
(713) 467-2478

General Description:

The SP 100 metal roofing panels are minimum 24-gauge galvalume steel panels with an optional paint finish. The metal roofing panels have a maximum coverage of 16". The panel has a snap lock, 1" in height, with a nail fastener flange with 1" x 1/4" slots located at 5-3/16" on center. The 24-gauge material complies with ASTM A 792 AZ 55, Grade 50, with a minimum 50 ksi yield point with optional paint finishes. The panels are rolled by a roll former manufactured by New Tech Machinery Corporation.

Limitations:

Roof Deck: The metal roofing panels must be installed over a minimum 15/32" plywood deck. Roof framing must not exceed 24" on center.

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

Roof Slope: The metal roof panels may be installed on roofs with a roof slope as low as 3:12.

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

Table 1: Attachment of 16" Wide Minimum 24-Gauge Steel Roof Panels to Minimum 15/32" Plywood

Design Wind Pressure (psf)	Panel	Panel Fasteners	Panel Fastener Spacing
-56.0	SP 100 24-Gauge	No. 10-12 Type A Pancake Head Screw	15-9/16" on center
-138.5	SP 100 24-Gauge	No. 10-12 Type A Pancake Head Screw	5-3/16" on center

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. The existing roof deck must be minimum 15/32" plywood. Note: Inspection of the existing roof deck must be made before installing the roof panels. The condition of the existing roof deck must be acceptable to receive the roof panels before the roof panel installation can proceed.

Installation:

General: Install the metal roofing panels in accordance with the manufacturer's recommended installation instructions and this evaluation report.

Panels: Attach panels in accordance with the installation details in Table 1.

Underlayment: Use a minimum of one layer of No. 30 (Type II) asphalt felt. Use underlayment that complies with one or more of the following: ASTM D 226, ASTM D 4869, or ASTM D 1970. Apply the underlayment with 4" laps. Apply the underlayment with corrosion resistant fasteners in accordance with the manufacturer's installation instructions and the IRC or the IBC. Fasteners must be applied along the overlaps not farther than 36" on center.

Anchorage to Roof Decking: The metal roof panels must be fastened in accordance with Table 1. The panels must be installed using one (1) No. 10-12 x 1" pancake head screw, Type A, along the panel fastener flange. The screws must penetrate a minimum of 1/4" below the plywood roof deck. Note: If the metal roofing panels are installed over an existing roof covering, then the length of the fastener must be increased so that the fasteners are long enough to ensure a penetration of 1/4" below the plywood roof deck. The spacing of the fasteners along the length of the panels shall be in accordance with Table 1.

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.

Panel Ends and End Laps: As required by the manufacturer.

Panel Edges: 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 and the IBC.