



Product Evaluation

RC580 | 0918

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-580

Effective Date: September 1, 2018

Re-evaluation Date: September 2022

Product Name: Apex 200 24-gauge Steel Standing Seam Roof Panels Installed Over Steel Purlins

Manufacturer: Apex Metals
12319 Hammond Lane
Santa Fe, TX 77510
(409) 927-4959

General Description:

The APEX 200 standing seam metal roof panels have 18-1/2" of coverage. The metal panels are minimum 24-gauge Galvalume coated steel that conforms to ASTM A792, Grade 50, with a minimum yield strength of 50,000 psi. The metal panels have a 2" rib height and a mechanical seamed side lap. An optional paint finish is available. The panel rollformer is manufactured by New Tech Machinery Corp.

Limitations:

Framing: The metal panels must be installed over open 16-gauge steel purlins.

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

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

Installation Over an Existing Roof Covering: Not permitted.

Roof Slope: The metal roofing panels may be installed on roofs with a roof slope as low as 1/2:12.

Table 1: Attachment of 24-gauge Apex 200 roof panels to minimum 16-gauge steel purlins

Purlins	Panel Clip Spacing	Design Wind Pressure (psf)
Minimum 16-gauge 5'-0" on center	5'-0" on center	-32.5
Minimum 16-gauge 4'-6" on center	4'-6" on center	-43.4
Minimum 16-gauge 4'-0" on center	4'-0" on center	-54.4
Minimum 16-gauge 3'-6" on center	3'-6" on center	-65.3
Minimum 16-gauge 3'-0" on center	3'-0" on center	-76.3
Minimum 16-gauge 2'-6" on center	2'-6" on center	-87.2
Minimum 16-gauge 2'-0" on center	2'-0" on center	-98.1
Minimum 16-gauge 1'-6" on center	1'-6" on center	-109.1
Minimum 16-gauge 1'-0" on center	1'-0" on center	-120.0

Installation:

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

Steel Purlins: The minimum thickness of steel and the maximum spacing of the purlins must be as specified in Table 1.

Underlayment: N/A

Attachment of Metal Panels to the Steel Purlins: The metal roof panels must be secured to the steel purlins with either NC-33001-3 or NC-33002-3 sliding clips by Logan Stamping, Inc./BPD (50 ksi steel, G90 galvanized steel) using 1/4-14 x 1-1/2" HWH SD3 screws. Two screws per clip are required. The fasteners must be long enough to ensure a minimum penetration of 3 pitches of thread below the steel purlin.

Panel Seam: Adjacent panels are seamed together mechanically along the side laps with a mechanical seamer to a double lock, 180-degree seam.

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, IBC, and the Texas Revisions.