

Product Evaluation

EC57 | 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: EC-57

Effective Date: August 1, 2019

Re-evaluation Date: August 2023

Product Name: PBM Steel Roof Panels Installed Over Steel Girts

Manufacturer: ACI Building Systems
10125 Highway 6 West
Batesville, MS 38606
(662) 563-4574

General Description:

This evaluation report is for PBM steel panels installed over steel girts. The steel panels are minimum 26-gauge Galvalume coated steel. The steel panels have 36" of coverage. The metal panels have a 3/4" rib height. The metal panels conform to ASTM A792, SS Grade 80 Class 1, with a minimum yield strength of 80 ksi. The metal panels can be furnished painted over an AZ 50 hot-dipped aluminum zinc alloy coating or an acrylic-coated Galvalume steel with an AZ 55 hot-dipped aluminum zinc alloy coating. The metal panels can be painted with silicone polyester products or with Kynar paint systems.

Limitations:

Wall Framing: The metal panels shall be installed over open steel girts.

New Wall Framing Attachment: The wall 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 Wall Covering: Not permitted.

Table 1. Attachment of minimum 26-gauge PBM panel metal panels to steel girts

Design Wind Pressure	Girts	Attachment of Panel to Steel Girts
-45 psf	Minimum 16 gauge; 5'-0" on center	Fasteners @ 12"-12"-12"; 5'-0" on center

Installation:

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

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

Underlayment: N/A.

Attachment of Metal Panels to the Steel Girts: The metal panels must be secured to the steel girts with No. 12-14 x 1-1/4" long HWH self-driller screws with a sealing washer manufactured by SFS. A line of fasteners must be located along each steel girt. The fastener pattern and the spacing of the fasteners 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 girt. Refer to Figure 1 in this evaluation report.

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

Panel Ends and End Laps to the Steel Girts: Minimum No. 12-14 x 1-1/4" long HWH self-driller screws with a sealing washer manufactured by SFS. The fastener pattern 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 girt. Refer to Figure 1 for an illustration of the fastener pattern.

Panel Edges to the Steel Girts: Minimum No. 12-14 x 1-1/4" long HWH self-driller screws with a sealing washer manufactured by SFS. The fastener pattern 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 girt. 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.

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.

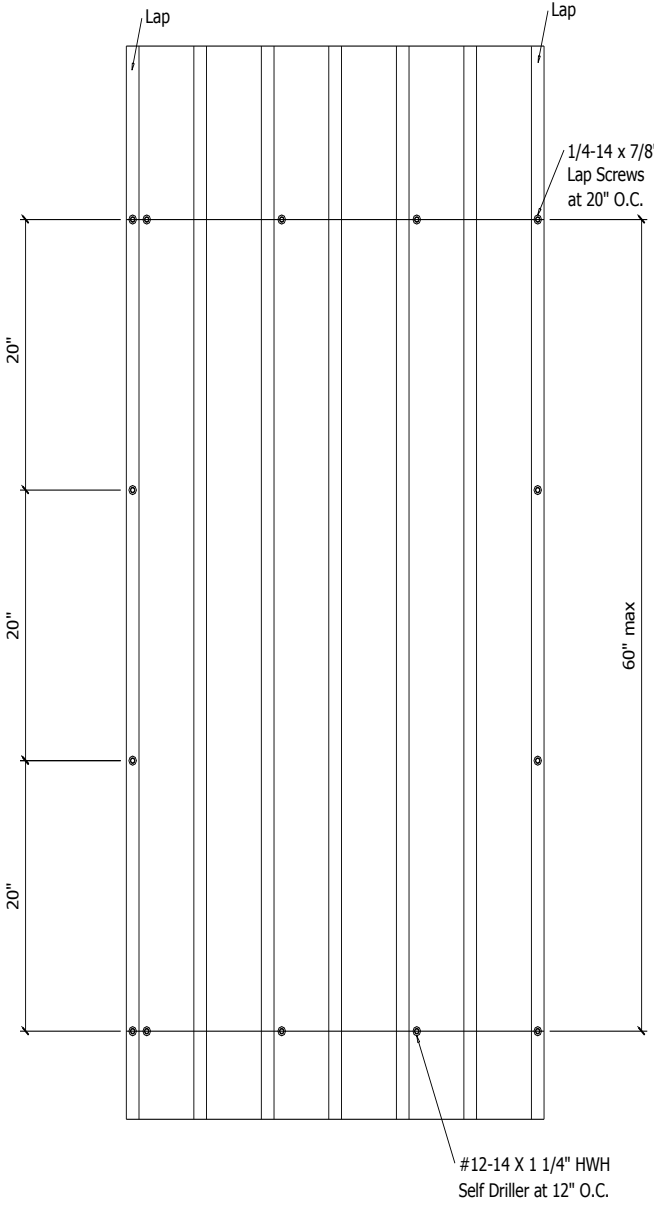


Figure 1. Minimum 26-Gauge PBM Panel Fastener Patterns