

Product Evaluation

RC732 | 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-732

Effective Date: October 1, 2023

Re-evaluation Date: October 2027

Product Name: Maxima ADV Metal Roof Panel Installed Over Open Frame

Manufacturer: McElroy Metal, Inc
1500 Hamilton Road
Bossier City, LA 71111
(318) 747-8000

General Description:

The Maxima ADV is a concealed fastener architectural roof panel. The panels are minimum 24-gauge steel. The panels have a maximum width of 18" and a minimum width of 12". The panels have a rib height of 2". The panel flat area may have optional striations or minor corrugations placed at various locations beginning min of 2" from the side rib. The upper flange of the panel rib may be horizontal, or optional formed down to an angle of 0 degrees or 90 degrees between the vertical segment and the top flange of the rib.

Limitations:

Roof Deck: The Maxima ADV metal roof panels may be installed over open frame steel purlins.

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

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. McElroy Metal recommends that sealant be used on the panel side laps for roof slopes less than 3:12. If sealant is not used on the panel side laps, then the minimum roof slope is 3:12.

Table 1: Attachment of Minimum 24-gauge Steel Roofing Panels to Steel Purlins.

Design Wind Pressure	Panel Width	Purlin Spacing	Panel Clip	Clip Spacing
52.5 psf	16"/18"	4'-0" on center	3-1/2" long 22-ga. galvanized	48" on center

Installation:

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

Panels: Panels must be secured to the steel purlins in accordance with Table 1.

Panel clips: Minimum 18-gauge steel, One piece; 3-1/2" long; 1-7/8" high.

Underlayment: N/A

Attachment of Metal Roof Panels to the Steel Purlins:

Fastener Type: The panels must be fastened to the purlins with No. 12-14 x 1" long, self-drilling hex head screws, with a separate EPDM rubber washer.

Panel Ends and End Laps:

An end lap back-up-plate to be used. A bead of sealant may be used at panel end laps and side ribs. Ribs to be seamed with an electric or handseaming tool to form a flange with a tight hem. Seaming process to include the upper portion of the Panel Clips.

Trims, Closures, and Accessories: Install components, such as the eave trim, rake trim, ridge trim, hip trim, and valley trim 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.