

Product Evaluation

RC219 | 0220

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-219

Effective Date: February 1, 2020

Re-evaluation Date: February 2024

Product Name: DMC 175S 16" and 18" Wide 24-Gauge Steel Standing Seam Roof Panels
Installed over a Plywood Deck

Manufacturer: Drexel Metals, Inc.
1234 Gardener Lane
Louisville KY 40213
(888) 321-9630

General Description:

24-gauge DMC 175S pre-formed standing seam metal roof panels, F = min. 50 ksi; 16" and 18" installed coverage; 1-3/4 snap lock seam.

Limitations:

Roof Slope: Below 2:12 is to be subject to Manufacturer's Engineering Review.

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" or 19/32" 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. NOTE: Underlayment is required to be installed.

Table 1. Attachment of DMC 175S Standing Seam Roof panels to a Plywood Deck

System	DMC 175 C Width (in.)	Design Wind Pressure (psf)	Fastener Clip	Fastener Clip Spacing	Deck
1	16	-97.5	18-gauge UL 90	25" o.c.	19/32" Plywood
2	16	-135.0	18-gauge UL 90	8" o.c.	19/32" Plywood
3	18	-76.75	18-gauge UL 90	16" o.c.	15/32" Plywood
4	18	-121.75	18-gauge UL 90	8" o.c.	15/32" Plywood

Installation:

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

Fastener Clips:

System No. 1: 18-gauge UL 90 clip installed with two, #10-13 x 1" pan head screws at 25" on center along the panel seam.

System No. 2: 18-gauge UL 90 clip installed with two, #10-13 x 1" pan head screws at 8" on center along the panel seam.

System No. 3: 18-gauge clip installed with two #10-13 x 1" pan head screws at 16" on center along the panel seam.

System No. 4: 18-gauge clip installed with two #10-13 x 1" pan head screws at 8" on center along the panel seam.

Roof Deck: System No. 1 and No. 2 use 19/32" thick plywood. System No. 3 and No. 4 use 15/32" thick plywood.

Roof Framing: Maximum spacing of 24" on center.

Underlayment: System No. 1 and No. 2 require Polyglass Polystick MTS High Temperature Underlayment or Manufacturer approved alternate. System No. 3 and No. 4 use ASTM D 226 Type II Underlayment installed with minimum 4" side laps and 6" end laps and fastened using 12 gauge 1-1/4" ring shank nails and 32 gauge 1-5/8" tin caps spaced 6 in. on center in the laps and two staggered rows 12" on center in the field, or Manufacturer approved alternate.

Panel Ends and End Laps: As required by the manufacturer

Panel Edges: As required by the manufacturer

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, the IBC, and the Texas Revisions.