TDI | Texas Department of Insurance

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# Product Evaluation

RC622 | 0320

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-622

**Effective Date:** March 1, 2020
**Re-evaluation Date:** March 2024

**Product Name:** Klein 200 Double Lock 24-Gauge Steel Roofing Panels Installed Over Steel Purlins

**Manufacturer:** Klein Roofing
17015 Seven Pines Drive, Bldg. #2
Spring, TX 77379
(281) 733-6060

**General Description:**
The Klein 200 metal roofing panel is constructed of minimum 24-gauge galvalume coated steel. It has a coverage of 18-1/2", 2" tall standing seam rib with a 180-degree mechanical lock seam. The 24-gauge steel material conforms to ASTM A792, Grade 50, with a minimum yield strength of 50,000 psi and optional painted finishes. Panel Rollformer is New Tech Machiney, Corp, SS200 panel profile.

**Limitations:**
**Roof Slope:** The metal roofing panels may be installed on roofs with a roof slope as low as 1/2:12 if sealant is used in the panel side laps. If sealant is not used in the panel side laps, then the minimum roof slope is 3:12.

**Roof Framing:** The metal roofing panels must be installed over a minimum 16-gauge steel framing. The roof framing must meet or exceed the uplift requirements of the IRC or IBC and must be as required for resistance of the wind loads.

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

**Table 1.** 200 Double Lock 24-Gauge Steel Roofing Panels Installed Over Steel Purlins

| Design Wind Pressure (psf) | Purlins (Minimum 16-gauge) | Clip Spacing for Steel Roof Panel to Steel Framing |
|---|---|---|
| -32.5 | 5'-0" O.C. | 5'-0" O.C. |
| -43.4 | 4'-6" O.C. | 4'-6" O.C. |
| -54.4 | 4'-0" O.C. | 4'-0" O.C. |
| -65.3 | 3'-6" O.C. | 3'-6" O.C. |
| -76.3 | 3'-0" O.C. | 3'-0" O.C. |
| -87.2 | 2'-6" O.C. | 2'-6" O.C. |
| -98.1 | 2'-0" O.C. | 2'-0" O.C. |
| -109.1 | 1'-6" O.C. | 1'-6" O.C. |
| -120.0 | 1'-0" O.C. | 1'-0" O.C. |

**Panel Clip:** 3" tall slider clip, G90 galvanized steel, Part # NC-33001-3/NC-33002-3 by Logan Stamping, Inc.

**Installation Over Existing Roof Covering:** N/A

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

**Attachment of Metal Roof Panels to the Steel Purlins:** The panels must be secured to the steel purlins with sliding clips. Use two (2) 1/4-14 X 1-1/4" HWH T3 self-drilling screws per clip. The spacing of the clips must be as specified in Table 1. The fasteners must be long enough to insure a minimum penetration of 3 pitches below the steel purlin.

**Panel Ribs:** The panel ribs must be seamed together 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 and the IBC.