

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION RC-246

Effective May 1, 2010

*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 shall be subject to reevaluation **March 2014**.*

*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.*

**Climaguard Metal Roofing Panels** manufactured by

**Fabral Metal Wall and Roof Systems**  
**3449 Hempland Rd.**  
**Lancaster, PA 17601**  
**(717) 391-3321**

will be accepted for use in areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

## PRODUCT DESCRIPTION

The Climaguard metal roof panels are snap together, concealed fastener, minimum 26 gauge steel with an optional paint finish. The panels are fabricated from 26 gauge, Grade 40 or greater structural quality steel with a G-90 or greater hot dipped galvanized coating conforming to ASTM A 653. The panels are installed over solid decking by placing fasteners in the panels slotted flange.

## LIMITATIONS

**Roof Decking:** The Climaguard metal roof panels shall be installed over minimum nominal  $\frac{5}{8}$ " plywood decking.

**New Roof Deck Attachment:** The roof decking shall meet or exceed the uplift requirements of the International Residential Code and shall be installed as required for resistance to lateral wind loads.

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

Table 1

Design Wind Pressure	Fastener Type	Fastener Spacing
-52.5 psf	No. 10 x 1" No. 2 Phillips Pancake head Type A	12 inches on center

**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 nominal  $\frac{5}{8}$  inch plywood (minimum). 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 roof panels before the roof panel installation proceeds.

**Roof Slope:** The metal roof panels shall not be installed on roofs with a roof slope less than 3:12.

## INSTALLATION INSTRUCTIONS

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

**Panels:** The Climaguard metal roof panels shall be secured to the roof deck as specified in Table 1 and in this section. Refer to Figure 1 for an illustration of the required fastener pattern.

**Underlayment:** A minimum of one layer of No. 30 (Type II) asphalt felt shall be used. The underlayment used shall comply with one or more of the following: ASTM D 226, ASTM D 4869, or ASTM D 1970. The felt shall be installed with 6-inch side laps and 3-inch end laps. The underlayment shall be applied with corrosion-resistant fasteners in accordance with the manufacturer's installation instructions. Fasteners shall be applied along the overlaps not farther apart the 36 inches on center.

### **Anchorage:**

**Fastener Type:** The panels shall be fastened to the roof deck with minimum No. 10 x 1" long, No. 2 Phillips Pancake head Type A screws. The fasteners shall be long enough to ensure a minimum penetration of  $\frac{1}{4}$ " below the roof deck. If the metal panels are set over an existing roof covering, then the fastener length shall be increased so that the fasteners are long enough to ensure a minimum penetration of  $\frac{1}{4}$ " below the existing plywood roof decking.

**Fastener Spacing:** The fasteners are to be spaced 12 inches on center through the pre-punched slots in the fastener flange of the panel.

**Trims, Closures, and Accessories:** Components, such as the eave trim, rake trim, hip and ridge details, valley trim, high-side trim, rake tie-in, high-side tie-in, and vent trim, shall be installed as specified in the Climaguard Installation Manual.

**Note:** The manufacturer's installation instructions shall be available on the job site during the installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.

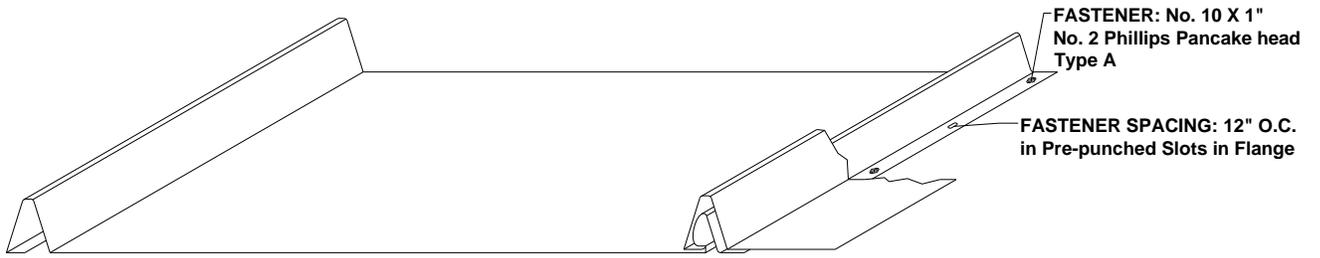


Figure 1: Climaguard Panel Detail