

TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104
Phone No. (512) 322-2212 Fax No. (512) 463-6693

PRODUCT EVALUATION RC-142

Effective September 1, 2013

*The following product has been evaluated for compliance with the wind loads specified in **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation **September 2017**.*

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.

Nail Strip Steel Roof Panels manufactured by

Austin Roofing and Siding, Inc.
9430 Research Blvd
Eschelon #2, Suite 350
Austin, TX 78759
Telephone: (512) 965-9609

is acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

Nail Strip roof panels are metal panels that are manufactured from aluminum-zinc alloy coated Galvalume steel conforming to ASTM A792-83 AZ50. The metal roof panel conforms to ASTM A446 Grade D, with a minimum yield strength of 50 ksi.

This product evaluation report covers the following Nail Strip products:

System	Product	Product Description
1	1" Nail Strip; 24 Ga. Steel Panel	16" wide panels; 1" tall ribs; 24 Ga. (0.0225") panel thickness
2	1.5" Nail Strip; 22 Ga. Steel Panel	16" wide panels; 1.5" tall ribs; 22 Ga. (0.0299") panel thickness

LIMITATIONS

Roof Deck: The roof deck shall be solidly sheathed. The minimum required thickness of the deck shall be $\frac{19}{32}$ " plywood panels. All joints are to be sealed with one part urethane sealant feathered out from the joints.

Roof Deck Attachment: The roof deck shall be secured to the roof framing to resist the required wind uplift design pressures.

Design Wind Pressures: The Nail Strip roof panels, when installed in accordance with this evaluation report, have the following allowable wind uplift pressures:

System	Product	Allowable Wind Pressure (psf)
1	1" Nail Strip; 24 Ga. Steel Panel	-100
2	1.5" Nail Strip; 22 Ga. Steel Panel	-105

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. The minimum thickness of the existing roof deck shall be as required for a new roof panel installation. Note: Inspection of the existing roof deck must be made before installing the roof panels. The condition of the existing roof deck must be acceptable to receive the roof panels before the roof panel installation can proceed. Note: A new underlayment installation is not required when installing panels over an existing roof covering.

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

INSTALLATION INSTRUCTIONS

General Installation Requirements:

The Nail Strip metal roof panel shall be installed as specified in this evaluation report and as specified in the manufacturer's recommended installation instructions. Refer to the Nail Strip Recommended Details and Trim document available from the manufacturer for specific installation details.

Roof panels shall overhang the eave as required by the selected eave detail.

Panel Installation Requirements

Panels: Panels shall be attached the roof deck as shown in Table 1:

**Table 1
Fastener Type, Quantity, and Spacing**

System	Product	Fastener Type and Quantity	Fastener Spacing
1	1" Nail Strip; 24 Ga. Steel Panel	One (1) #10-12 x 1"	16" o.c.
2	1.5" Nail Strip; 22 Ga. Steel Panel	One (1) #10-12 x 1"	20 3/4" o.c.

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 underlayment shall be installed with minimum 6 inch side laps and minimum 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 than 36 inches on center. Note: An optional radiant barrier may be installed beneath the panels in conjunction the underlayment.

Anchorage: The Nail Strip roof panels shall be secured to the roof decking in accordance with Table 1 using minimum No. 10-12 x 1" Pancake head Type A screws, manufactured by SFS Intec. If the panels

are laid directly over an existing roof covering, then longer fastener may be required. The fasteners shall be long enough to penetrate completely through the wood structural panels with a minimum exposure of $\frac{1}{4}$ inch below the underside of the wood structural panels.

Trim: Trim shall be installed in accordance with the manufacturer's installation instructions. Refer to the Nail Strip Recommended Details and Trim document available from the manufacturer for specific installation details.

Alternative Fasteners: Substitution of equivalent fasteners shall meet the following requirements:

#10-12 Pancake head Type A screws, manufactured by SFS Intec (Construction Fasteners, Inc.)
Ultimate withdrawal (pullout) \geq 521 lbs. in $1\frac{9}{32}$ inch plywood

Note: A copy of the Nail Strip Recommended Details and Trim document available from the manufacturer 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.