

FLORIDA PRODUCT APPROVAL # 4595.11 R4

Minimum 26 Ga. PBR-Lok Roof Panel Over 1x4 Wood Purlins
Over 15/32" Plywood



**Product Evaluation Report
TRI COUNTY METALS**

Min. 26 Ga. PBR Roof Panel over 1x4 Wood Purlins over 15/32" Plywood

Florida Product Approval # 4595.11 R4

Florida Building Code 2017

Per Rule 61G20-3

Method: 1-D

Category: Roofing

Subcategory: Metal Roofing

Compliance Method: 61G20-3.005(1)(d)

NON HVHZ

Product Manufacturer:

Tri County Metals

301 SE 16th Street

Trenton, Florida 32693

Engineer Evaluator:

Terrence E. Wolfe, P.E. # 44923

Florida Evaluation ANE ID: 1920

Validator:

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- Compliance Statement:** The product as described in this report has demonstrated compliance with the Florida Building Code 2017, Sections 1504.3.2, 1504.7.
- Product Description:** PBR Roof Panel, Min. 26 Ga. Steel, 36" coverage, through fastened roof panel over 1x4 wood purlins over one layer of asphalt shingles (optional) over min. 15/32" APA Plywood decking. Non-Structural Application.
- Panel Material/Standards:** Material: Min. 26 Ga. Steel, conforming to Florida Building Code 2017 Section 1507.4.3. Paint finish optional.
Yield Strength: Min. 80.0 ksi
Corrosion Resistance: Panel Material shall comply with Florida Building Code 2017, Section 1507.4.3.
- Panel Dimension(s):** Thickness: 0.018" min.
Width: 36" maximum coverage
Rib Height: 1 1/2" tall major ribs at 12" O.C.
- Panel Fastener:** #9-15 x 1-1/2" Woodgrip with sealing washing or approved equal
X-14 x 7/8" HWH with sealing washer through panel side laps at 24" O.C.
Corrosion Resistance: Per Florida Building Code 2017, Section 1507.4.4.
- Substrate Description:** Min. 1x4 No. 2 SYP wood purlins over maximum one layer of asphalt shingles/felt paper (optional) over min. 15/32" thick, APA Rated plywood over supports at maximum 24" O.C. The 1x4 wood purlins shall be fastened to the plywood with (1) 8d x 2 3/8" Ring Shank Nail at 4" O.C. or to the wood rafters with (2) #9 x 3" Deck Screws at 24" O.C. Maximum. Design of 1x4 wood purlins, plywood and plywood supports are outside the scope of this evaluation. Substrate must be designed in accordance w/ Florida Building Code 2017.

Allowable Design Uplift Pressures:

Table "A"

Maximum Total Uplift Design Pressure:	71.0 psf	78.5 psf
Fastener Pattern:	12"-12"-12"	7"-5"-7"-5"-7"
Fastener Spacing:	24" O.C.	24" O.C.

*Design Pressure includes a Safety Factor = 2.0.

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Code Compliance:	The product described herein has demonstrated compliance with The Florida Building Code 2017, Section 1504.3.2, 1504.7.
Evaluation Report Scope:	The product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code 2017, as relates to Rule 61G20-3.
Performance Standards:	The product described herein has demonstrated compliance with: <ul style="list-style-type: none">▪ UL 580-06 - Test for Uplift Resistance of Roof Assemblies▪ UL 1897-2012 - Uplift Test for Roof Covering Systems▪ FM 4471-92 - Foot Traffic Resistance Test
Reference Data:	<ol style="list-style-type: none">1. UL 580-06 / 1897-04 Uplift Test Force Engineering & Testing, Inc. (FBC Organization # TST-5328) Report No. 136-0172T-122. FM 4471-10, Section 4.4 Foot Traffic Resistance Test Force Engineering & Testing, Inc. (FBC Organization # TST-5328) Report No. 136-0172T-123. Certificate of Independence By Terrence E. Wolfe, P.E. (No. 44923) @ Force Engineering & Testing, Inc. (FBC Organization # ANE ID: 1920)
Test Standard Equivalency:	The UL 1897-04 test standard is equivalent to the UL 1897-2012 test standard. The FM 4471-10, Foot Traffic Resistance test standard is equivalent to the FM 4471-92, Foot Traffic Resistance test standard
Quality Assurance Entity:	The manufacturer has established compliance of roof panel products in accordance with the Florida Building Code and Rule 61G20-3.005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity.
Minimum Slope Range:	Minimum Slope shall comply with Florida Building Code 2017, including Section 1507.4.2 and in accordance with Manufacturers recommendations. For slopes less than 3:12, lap sealant must be used in the panel side laps.
Installation:	Install per manufacturer's recommended details.

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Underlayment:	Per Florida Building Code 2017, Section 1507.1.1 and manufacturer's installation guidelines.
Roof Panel Fire Classification:	Fire classification is not part of this acceptance.
Shear Diaphragm:	Shear diaphragm values are outside the scope of this report.
Design Procedure:	Based on the dimensions of the structure, appropriate wind loads are determined using Chapter 16 of the Florida Building Code 2017 for roof cladding wind loads. These component wind loads for roof cladding are compared to the allowable pressure listed above. The design professional shall select the appropriate erection details to reference in his drawings for proper fastener attachment to his structure and analyze the panel fasteners for pullout and pullover. Support framing must be in compliance with Florida Building Code 2017 Chapter 22 for steel, Chapter 23 for wood and Chapter 16 for structural loading.

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