

Force Engineering & Testing

19530 Ramblewood Drive
Humble, Texas 77338
Phone: (281) 540-6603 FAX: (281) 540-9966
Website: www.forceengineeringtesting.com

Product Evaluation Report
TRI COUNTY METALS

26ga. TCM Lok Roof Panel over 7/16" OSB or 15/32" Plywood

Florida Product Approval # 23302.1 R1

Florida Building Code 2020

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 S. E. 16th Street
Trenton, Florida 32693

Engineer Evaluator:

Johnathan Green, P.E. #88223
Florida Evaluation ANE ID: 12901

Validator:

Brian Jaks P.E. #70159

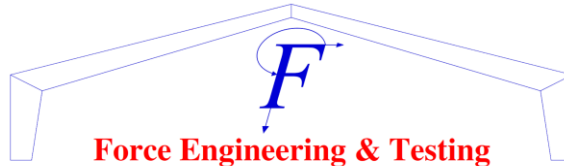
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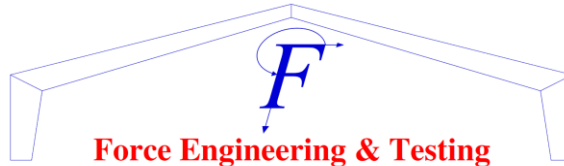
- Compliance Statement:** The product as described in this report has demonstrated compliance with the Florida Building Code 2020, Sections 1504.3.2.
- Product Description:** TCM Lok 1" Nailstrip Roof Panel, 26ga. Steel, 15 3/4" Coverage, Roof Panel attaching to 7/16" OSB or minimum 15/32" APA Plywood decking. Non-structural Application.
- Panel Material/Standards:** Material: 26ga. Steel ASTM A792 AZ55 conforming to Florida Building Code 2020 Section 1507.4.3. Paint finish optional.
Yield Strength: Min. 50 KSI
Corrosion Resistance: Panel Material shall comply with Florida Building Code 2020, Section 1507.4.3
- Panel Dimension(s):** Thickness: 0.019"
Width: 15 3/4" max coverage
Female Rib: 1" tall
Male Rib: 3/4" tall rib w/ slotted strip.
Panel Seam: Snap Lock
- Panel Fastener:** Through Panel Slot: (1) #10-12 x 1" Pancake Type A; every other slot 1/4" minimum penetration through plywood
Corrosion Resistance: Per Florida Building Code 2020, Section 1507.4.4.
- Panel Seam Sealant:** 3/8" wide continuous bead of Titebond® WeatherMaster Metal Roof Sealant applied to the inside edge of the male rib prior to installing the next panel. See detail for location.
- Substrate Description:** One layer of asphalt shingles/felt paper (optional) over min. 7/16" CAT PS 2-10 Exposure 1 OSB sheathing or 15/32" thick APA Rated plywood over supports at maximum 24" o.c. Design of OSB or plywood and supports are outside the scope of this evaluation. Substrate must be designed in accordance with Florida Building Code 2020.



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Allowable Design Uplift Pressures:

Table "A"

Maximum Total Uplift Design Pressure:	67.5 psf	112.5 psf
Panel Seam Sealant:	NA	3/8" Bead
Panel Fastener Spacing:	4 ½" O.C.	4 ½" O.C.

*Design Pressure includes a Safety Factor = 2.0.

Code Compliance:

The product described herein has demonstrated compliance with The Florida Building Code 2020, Section 1504.3.2.

Evaluation Report Scope:

The product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code 2020, as relates to Rule 61G20-3.

Performance Standards:

The product described herein has demonstrated compliance with:

- UL 580-06 - Test for Uplift Resistance of Roof Assemblies
- UL 1897-2012 - Uplift Test for Roof Covering Systems

Reference Data:

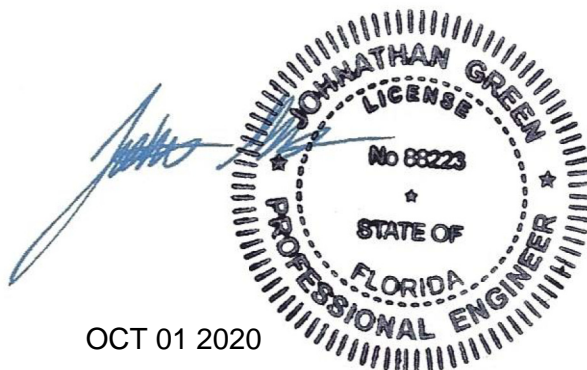
1. UL 580-06 / 1897-04 & -12 Uplift Test
PRI Construction Materials Technologies, LLC (FBC Organization # TST5878)
Report No. TCM-001-02-01 Dated 09/25/2017
2. Certificate of Independence
By Johnathan Green, P.E. (No. 88223) @ Force Engineering & Testing
(FBC Organization # ANE ID: 12901)

Quality Assurance Entity:

The manufacturer has established compliance of roof panel products in accordance with the Florida Product Code and Rule 61G20-3.005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity.

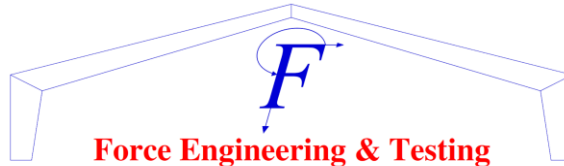
Minimum Slope Range:

Minimum Slope shall comply with Florida Building Code 2020, including Sections 1507.4.2 and in accordance with Manufacturers recommendations.



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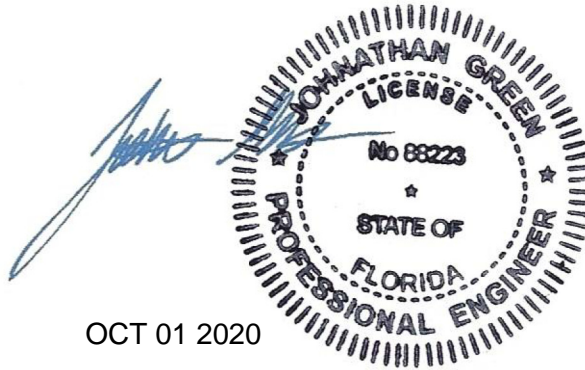


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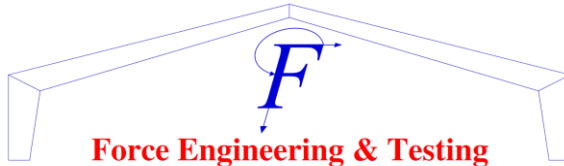
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- Installation:** Install per manufacturer's recommended details.
- Underlayment:** Per Florida Building Code 2020, Section 1507.1.1 and manufacturer's installation guidelines.
- Roof Panel Fire Classification:** Fire classification is not part of 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 2020 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 2020 Chapter 22 for steel, Chapter 23 for wood and Chapter 16 for structural loading.

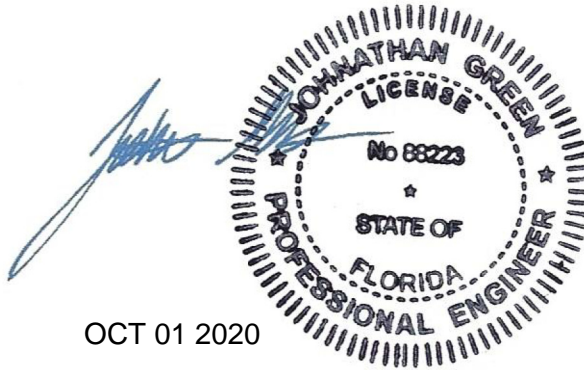
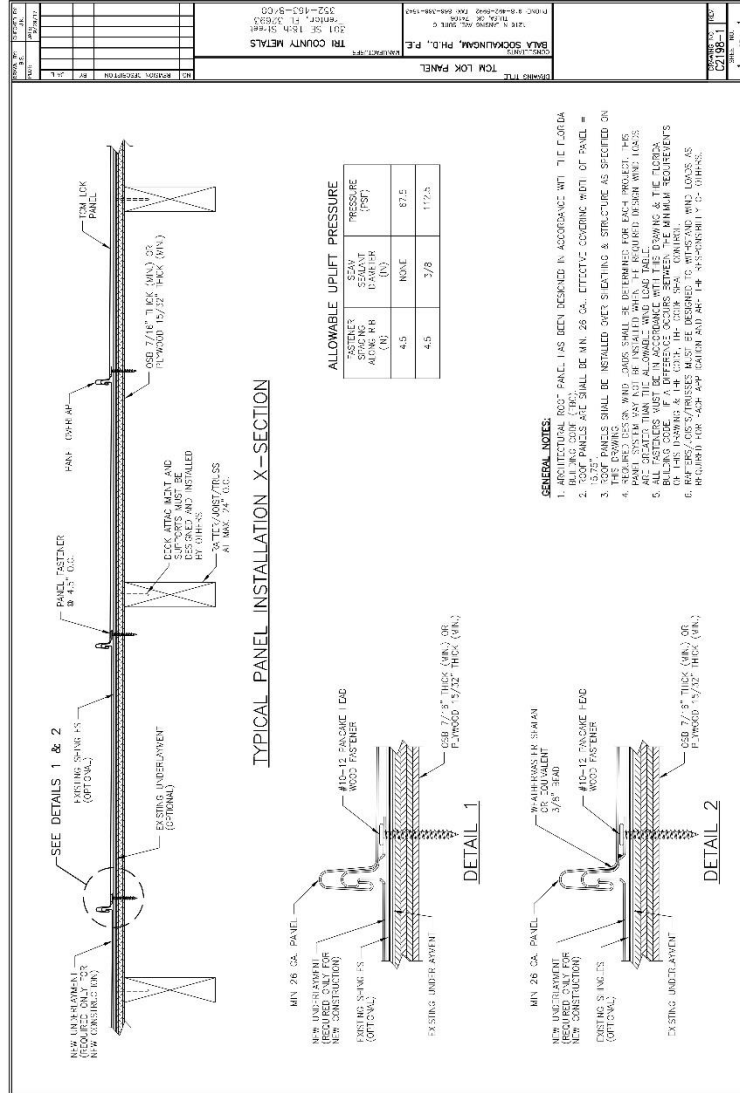


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