

Product Evaluation Report
CENTRAL STATES MANUFACTURING, INC.

Panel-Loc Plus Roof Panel over 15/32" Plywood

Florida Product Approval # 14026.1 R2

Florida Building Code 2010
Per Rule 9N-3
Method: 1 -D

Category: Roofing
Subcategory: Metal Roofing
Compliance Method: 9N-3.005(1)(d)
HVHZ

Product Manufacturer:

Central States Manufacturing, Inc.
302 Jane Place
Lowell, AR 72745

Engineer Evaluator:

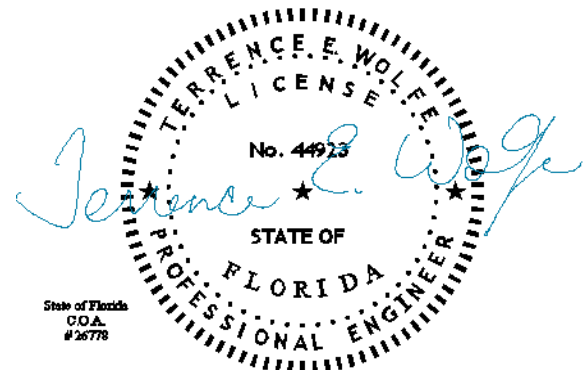
Terrence E. Wolfe, P.E. # 44923
Florida Evaluation ANE ID: 1920

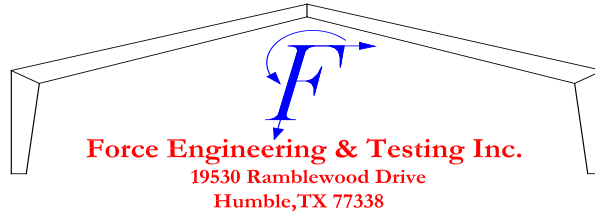
Validator:

Locke Bowden, P.E., FL #49704
9450 Alysbery Place
Montgomery, AL 36117

Contents:

Evaluation Report Pages 1 – 4





Compliance Statement: The product as described in this report has demonstrated compliance with the Florida Building Code 2010, Sections 1504.3.2, 1518.9, 1523.6.5.2.4.

Product Description: Panel-Loc Plus Roof Panel, 26 Ga. (29 Ga. NONHVHZ) Steel, 36" Wide, through fastened roof panel over 15/32" Plywood decking. Non-Structural Application.

Panel Material/Standards: Material: 26 Ga. (29 Ga. NONHVHZ) Steel, ASTM A792 or ASTM A653 G90 conforming to Florida Building Code 2010 Section 1507.4.3.
Paint Finish: Valspar Fluropon Coating (Optional)
Yield Strength: Min. 80.0 ksi
Corrosion Resistance: Panel Material shall comply with Florida Building Code 2010, Section 1507.4.3

Panel Dimension(s): Thickness: 0.0185" Min. (26 Ga. HVHZ)
0.0145" Min. (29 Ga. NONHVHZ)
Width: 36"
Rib Height: 3/4" major rib at 9" O.C.
Panel Rollformer: Bradbury

Panel Fastener: #10 x 1-1/2" Kwikseal II Woodbinder with sealing washing or approved equal 1/4" minimum penetration through plywood
Corrosion Resistance: Per Florida Building Code 2010, Section 1506.6, 1507.4.4

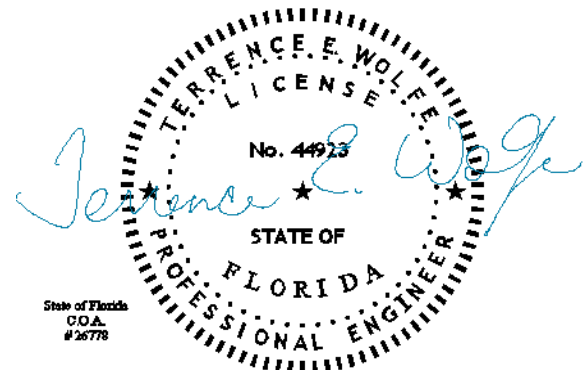
Substrate Description: Min. 15/32" thick, APA Rated plywood over supports at maximum 24" O.C.
Design of plywood and plywood supports are outside the scope of this evaluation. Must be designed in accordance w/ Florida Building Code 2010.

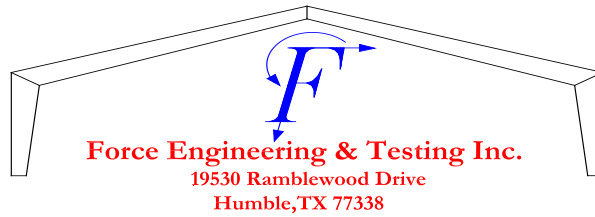
Design Uplift Pressures:

Table "A"

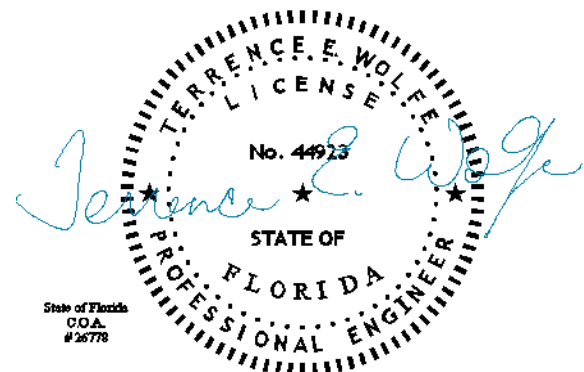
Maximum Total Uplift Design Pressure:	101.0 psf	168.5 psf
Fastener Pattern:	6"-3"-6"-3"- 6"-3"-6"	6"-3"-6"-3"- 6"-3"-6"
Fastener Spacing:	24" O.C.	12" O.C.

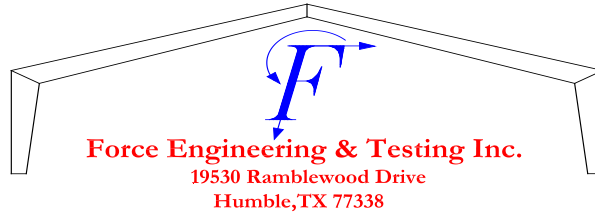
*Design Pressure includes a Safety Factor = 2.0.





- Code Compliance:** The product described herein has demonstrated compliance with The Florida Building Code 2010, Section 1504.3.2, 1518.9, 1523.6.5.2.4.
- Evaluation Report Scope:** The product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code 2010, as relates to Rule 9N-3.
- Performance Standards:** The product described herein has demonstrated compliance with:
- TAS 125-03
 - UL 580-06 - Test for Uplift Resistance of Roof Assemblies
 - UL 1897-04 - Uplift Test for Roof Covering Systems
 - TAS 100-95 - Test Procedure for Wind and Wind Driven Rain Resistance of Discontinuous Roof Systems
 - TAS 110-00 - Accel. Weathering ASTM G 26 / Salt Spray ASTM B 117
- Reference Data:**
1. TAS 125-03: UL 580-94 / 1897-98 Uplift Test
Force Engineering & Testing, Inc. (FBC Organization # TST-5328)
Report No. 410-0226T-11A-C, Dated 11/14/2011
 2. TAS 100-95
Farabaugh Engineering & Testing, Inc. (FBC Organization # TST-1654)
Report No. T330-11, Dated 11/10/2011
 3. TAS 110-00: Valspar Fluropon coated metal panel testing
A) ASTM G 26 by PRI Asphalt Technologies dated 01/19/2004
B) ASTM B 117 by PRI Asphalt Technologies dated 01/19/2004
 4. Certificate of Independence
By Terrence E. Wolfe, P.E. (No. 44923) @ Force Engineering & Testing, Inc.
(FBC Organization # ANE ID: 1920)
- Test Standard Equivalency:**
1. The UL 580-94 test standard is equivalent to the UL 580-06 test standard.
 2. The UL 1897-98 test standard is equivalent to the UL 1897-04 test standard.
- Quality Assurance Entity:** The manufacturer has established compliance of roof panel products in accordance with the Florida Building Code and Rule 9N-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 2010, including Section 1515.2 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 and RAS 133.
- Underlayment:** Per Manufacturer's installation guidelines per Florida Building Code 2010 Section 1518.2, 1518.3, 1518.4.
- Fire Barrier:** Any approved fire barrier having a current NOA. Refer to a current fire directory listing for fire ratings of this roofing system assembly as well as the location of the fire barrier within the assembly. 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 2010 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 2010 Chapter 22 for steel, Chapter 23 for wood and Chapter 16 for structural loading.

