

# Product Evaluation Report METAL BUILDING SUPPLIES, LLC.

## 1.5" Snap Lock 24 Ga. Roof Panel over 15/32" Plywood

### Florida Product Approval # 4525.2 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:
Metal Building Supplies, LLC.
800 E. Donegan Ave.
Kissimmee, Florida 34744

Engineer Evaluator:
Terrence E. Wolfe, P.E. # 44923

Florida Evaluation ANE ID: 1920

#### **Validator:**

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

#### **Contents:**

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January 30, 2012



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: 1-1/2" Snap Lock Standing Seam Roof Panel, 24 Ga. Steel, 16" Wide, Roof Panel

restrained with steel slider clips into 15/32" Plywood decking. Non-structural

Application.

Panel Material/Standards: Material: 24 Ga. Steel, ASTM A792 or ASTM A653 G90 conforming to Florida

Building Code 2010 Section 1507.4.3.

Paint Coating: Valspar Fluropon Coating (Optional)

Yield Strength: Min. 50.0 ksi

Corrosion Resistance: Panel Material shall comply with Florida Building Code

2010, Section 1507.4.3

Panel Dimension(s): Thickness: 0.024"

Width: 16"
Rib Height: 1-1/2"
Panel Seam: Snap Lock

Panel Rollformer: Schlebach Quadro-Plus Rollformer

**Roof Panel Clips:** Product Name: 1500SNS

Type: Fixed, 18 Ga., 3 ½" long

Corrosion Resistance: Per Florida Building Code 2010 Section 1506.7

**Roof Clip Fastener:** (2) #12-11 x 1" Pancake Type A

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.

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#### **Design Uplift Pressures:**

Table "A"

Maximum Total Uplift Design Pressure:	86.0 psf	108.5 psf	116.0 psf
Clip Spacing:	24" O.C.	12" O.C.	6" O.C.
# Fasteners per Clip:	2	2	2

<sup>\*</sup>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:** 

- TAS 125-03: UL 580-94 / 1897-98 Uplift Test
   Force Engineering & Testing, Inc. (FBC Organization # TST-5328)
   Report No. 72-0108T-07\*, Dated 03/28/2007
- 2. TAS 100-95

Farabaugh Engineering & Testing, Inc. (FBC Organization # TST-1654) Report No. T107-07\*, Dated 01/15/2007

- 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: 2:12. Minimum Slope shall comply with Florida Building Code 2010, including

Sections 1515.2 and in accordance with Manufacturers recommendations.

Installation: Install per manufacturer's recommended details and RAS 133.

**Underlayment:** Per Manufacturer's installation guidelines per Florida Building Code 2010 Section

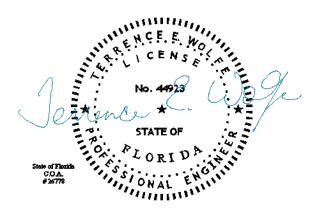
1518.2, 1518.3, 1518.4.

Fire Barrier: ¼" Georgia Pacific "Dens Deck" or manufacturer approved equal.

**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.



<sup>\*</sup>The Test Reports are owned by Metalforming, Inc. Metalforming, Inc. gives the above manufacturer permission to use these test reports.