

**Force Engineering & Testing**

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

**Product Evaluation Report**  
**SUNSHINE METAL SUPPLY, INC.**

**26 Ga. SUNPBR Roof Panel over open framing**

**Florida Product Approval # 25616.1 R1**

Florida Building Code 2020  
Per Rule 61G20-3  
Method: 1 –D

Category: Structural Components  
Subcategory: Roof Deck  
Compliance Method: 61G20-3.005(1)(d)  
NON HVHZ

**Product Manufacturer:**

**Sunshine Metal Supply, Inc.**  
719 Cattlemen Road  
Sarasota, FL 34232  
Telephone: (941) 600-2521

**Engineer Evaluator:**

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

**Validator:**

**Brian Jaks, P.E. #70159**

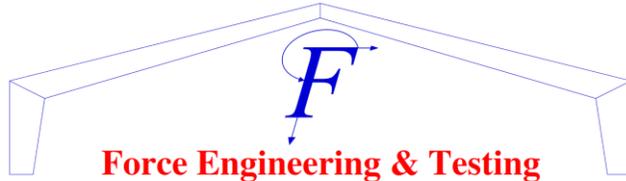
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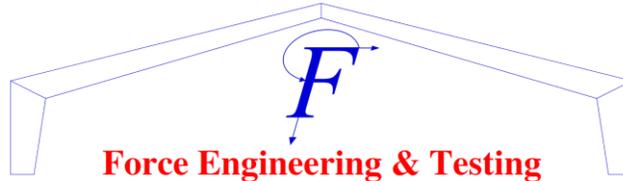
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- Compliance Statement:** The product as described in this report has demonstrated compliance with the Florida Building Code 2020, Sections 1504.3.2, 1504.7.
- Product Description:** SUNPBR Roof Panel, 26 Ga. Steel, 36" Wide, through fastened structural roof panel. Structural Application.
- Panel Material/Standards:** Material: 26 Ga. Steel, ASTM A792 or ASTM A653 G90 conforming to Florida Building Code 2020 Section 1507.4.3.  
Yield Strength: Min. 80.0 ksi  
Corrosion Resistance: Panel Material shall comply with Florida Building Code 2020, Section 1507.4.3.
- Panel Dimension(s):** Thickness: 0.0167" min.  
Width: 36" maximum coverage  
Rib Height: 1 1/4" major rib at 12" O.C.  
Panel Rollformer: CSC Machine – Sunnyside Washington
- Panel Fastener:** #12-14 x 1-1/4" Steelbinder ZXL HWH SD with sealing washing or approved equal; at 12", 12", 12" pattern across the panel width in the interior panel areas and at 7", 5", 7", 5", 7", 5" pattern across the panel width at the panel ends.  
1/4-14 x 7/8" Steelbinder Maxx HWH Stitch with sealing washer through panel side laps at 24" O.C.  
Corrosion Resistance: Per Florida Building Code 2020.
- Substrate Description:** Min. 16 Ga. Steel Framing. Framing must be designed in accordance w/ Florida Building Code 2020.



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**Allowable Design Pressures:**

Sunshine Metal Supply, Inc.  
Min. 26 ga. SUNPBR Roof Panel  
Design Uplift and Gravity Loads

Span (in)	Gravity Load (psf)	Uplift Load (psf)
24	120.0	128.0
27	106.7	113.8
30	96.0	102.4
33	87.3	93.1
36	80.0	85.3
39	73.8	78.8
40	72.0	76.8
42	68.6	73.1
45	64.0	68.3
48	60.0	64.0
51	56.5	60.2
54	53.3	56.9
57	50.5	53.9
60	48.0	47.5

**Notes:**

1. Allowable load is the lowest value of panel strength, connection strength & deflection limit of L/180.
2. Allowable load is applicable to three or more spans conditions.
3. Panels must be installed as per Evaluation Report FL 25616.1 and Sunshine Metal Supply current installation procedure.
4. The structural capacity of support beam are not considered and must be examined independently.
5. Minimum support thickness is 16 ga.

**Code Compliance:**

The product described herein has demonstrated compliance with The Florida Building Code 2020, 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 2020, as relates to Rule 61G20-3.

**Performance Standards:**

The product described herein has demonstrated compliance with:

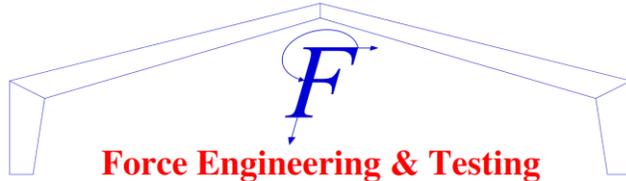
- ASTM E 1592-05 (2012) Test method for structural performance of sheet metal roof and siding systems by uniform static air pressure difference.
- FM 4471-92, Foot Traffic Resistance Test.



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### Reference Data:

1. ASTM E 1592-05 (2012)  
ENCON® Technology, Inc.  
Project C2194-1; Reporting Date: 12/14/17
2. FM 4471-10, Section 4.4 Foot Traffic Resistance Test  
ENCON® Technology, Inc.  
Project C2194-2; Reporting Date: 12/14/17
3. 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 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 2020, 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.

### Insulation:

Manufacturer's approved product (Optional)

### Roof Panel Fire Classification:

Fire classification is not part of this acceptance.

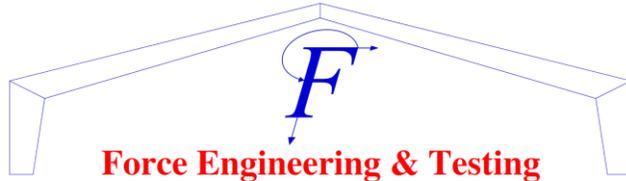
### Shear Diaphragm:

Shear diaphragm values are outside the scope of this report.



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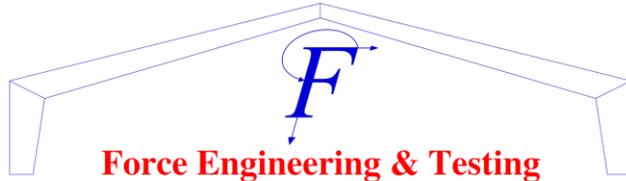
**Design Procedure:**

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, and Chapter 16 for structural loading.



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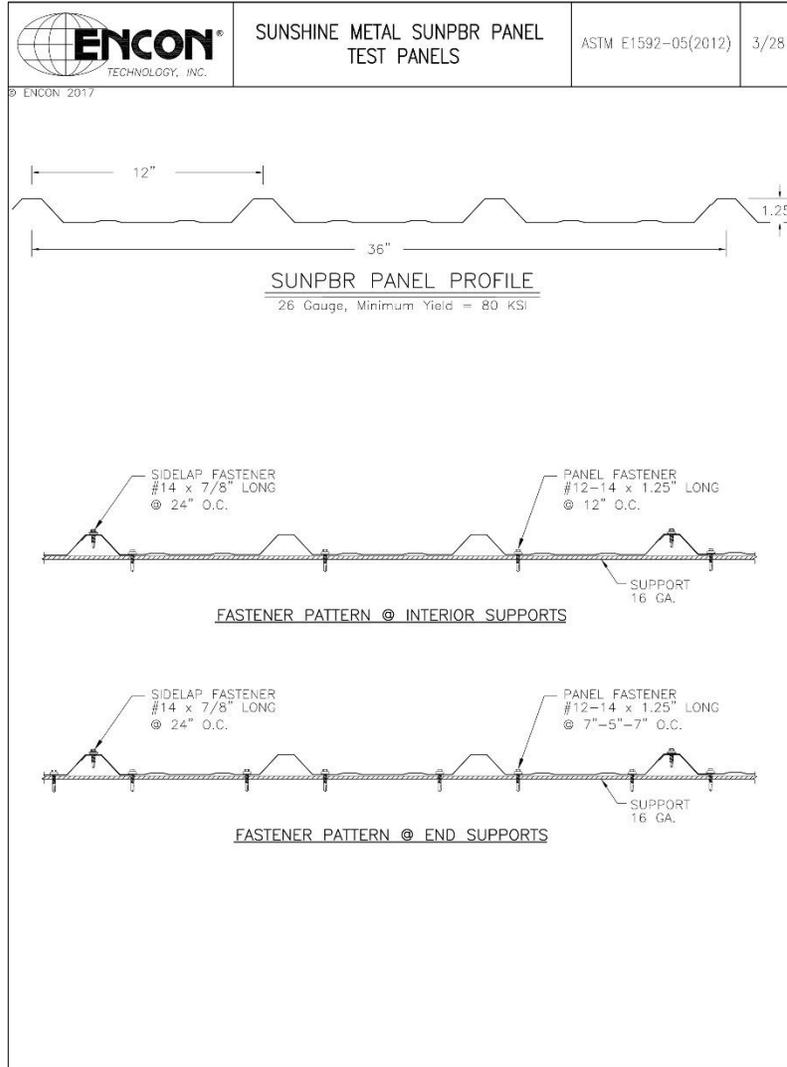


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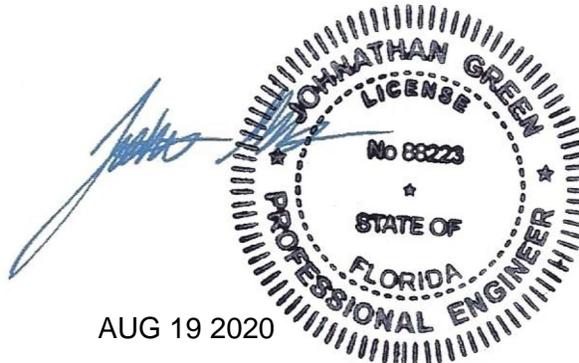
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C2194-1

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