Force Engineering & Testing Inc.
19530 Ramblewood Drive
Humble,TX 77338

Product Evaluation Report

PETERSEN ALUMINUM CORPORATION

"SNAP CLAD STANDING SEAM METAL ROOF PANEL 18"WIDE X 22 Ga. STEEL over 22 Ga. Metal B-Deck"

Florida Product Approval # 13549.3

Florida Building Code 2007
Per Rule 9B-72
Method: 1 –D

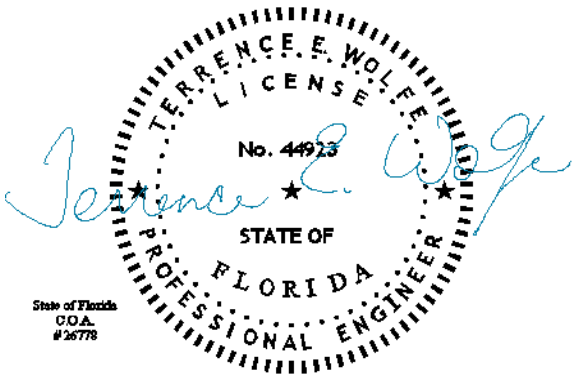
Category: Roofing
Subcategory: Metal Roofing
Compliance Method: 9B-72.070(1)(d)
NON HVHZ

Product Manufacturer:
Petersen Aluminum Corporation
102 Northpoint Parkway
Acworth, GA. 30102

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

Validator:
C. Keith Brasher, P.E., FL #11140
805 Melbourne Trail
Alpharetta, GA 30009

Contents:



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Compliance Statement: The product as described in this report has demonstrated compliance with the Florida Building Code 2007, Sections 1504.3.2.

Product Description: Snap-Clad Standing Seam, 22 Ga. Steel, 18" Wide, Roof Panel restrained by Snap Clad UL rated Clips, Fastened through rigid insulation into steel "B" deck and supported by steel purlins. Non-structural Application.

Panel Material/Standards:
Material: Steel
Yield Strength: 50 ksi
Corrosion Resistance: Panel Material shall comply with FBC, Section 1507.4.3

Panel Dimension(s):
Thickness: .027"
Width: 18"
Rib Height: 1 ¾"

Roof Insulation Board: Above Deck Thermal Insulation Board shall comply with the standards in table 1508.2

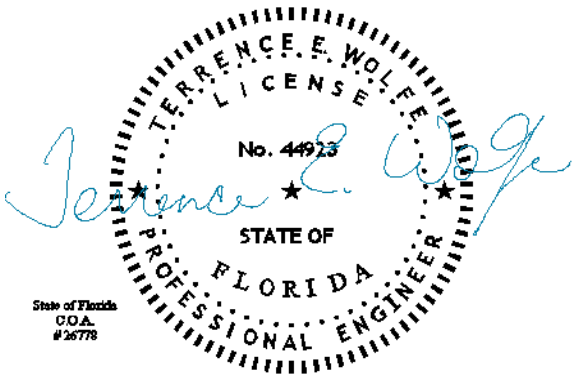
- **Rigid Insulation Board**
  - 4 maximum thickness (2" minimum)
  - Grade 2 with a minimum compressive strength of 20 psi per ASTM D 1621
- **Fire Barrier Board - Optional**
  - Exterior grade gypsum board
  - 5/8" maximum thickness

Substrate Description: **Steel "B" Deck panel** (over steel supports-preliminarily attached). Must be designed in accordance w/ FBC 2007

- Steel, 22 Gauge minimum
  - Corrugation height: 1-1/2"
  - Yield Strength: 33 ksi minimum

Support: **Purlins** (Design of support system is not included in this evaluations)

- Steel Purlins, W8x21
- Yield Strength: 50 ksi minimum
- Support Spacing: 60" (5' - 0")



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Minimum Slope Range: Minimum Slope shall comply with FBC 2007, including Sections 1507.4.2, 1504.7 and in accordance with Manufacturers recommendations.

Roof Panel Clips:

Product Name:	Snap-Clad Clip
Material:	G90 Galvanized Steel Base
Type:	Fixed
Thickness:	.049”
Strength:	33 ksi
Dimensions:	3-3/4” Long with 2-3/8” Wide Base
Corrosion Resistance:	Per FBC Section 1506.7

Roof Clip Fastener: #14-10 x 5”
¾” minimum penetration through lower deck flute
Corrosion Resistance: Per FBC Section 1506.6 and 1507.4.4

Bearing Plates: 5” x 6” x 24 Ga. Bearing Plates, Painted – 1 per clip

Installation:

Petersen “Snap Clad” Roof Panel System (See uploaded details)
Roof Attachment to Steel Deck:

- Clip Spacing: 48” o.c. Max. 2 fasteners per clip

(Through rigid insulation and into steel deck)

- Rib Interlock: Snap Seam

(Panel ribs shall be fully engaged to form an integral Pittsburgh Seam.)
Steel “B” Deck Attachment to Support: 6” o.c.
Steel “B” Deck Side-lap Screws @ 16” o.c.
Install the panel system according to the manufacturer’s installation instruction.

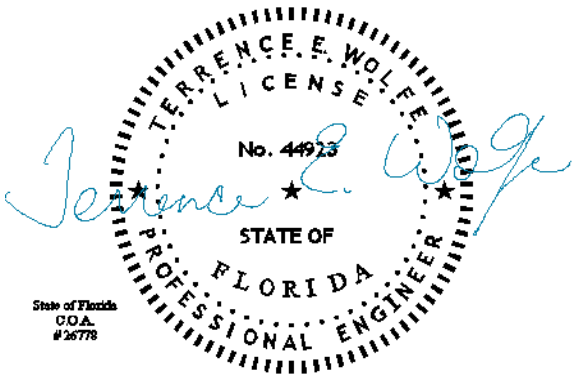
Design Uplift Pressures:

Table "A"

Maximum Total Uplift Design Pressure:	-62.4 psf	-115.7 psf
Clip Spacing:	4’-0” o.c.	1’-0” o.c.
# Fasteners per Clip:	2	2
Span Condition:	3 – Span	3 – Span

*Design Pressure includes a 2:1 Safety Factor. See Load table for additional values.

Quality Assurance Entity: The manufacturer has established compliance of roof panel products in accordance with the Florida Building Code and Rule 9B-72.070 (3) for manufacturing under a quality assurance program audited by an approved



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quality assurance entity through: **Underwriters Laboratories, Inc. (FBC Organization # QUA ID: 1743)**

Performance Standards:

The product has been tested in accordance with:

- UL 580 (1994) - Test for Uplift Resistance of Roof Assemblies – with Revisions through February 1998
- UL 1897 (1998) – Uplift Test for Roof covering systems – with revisions through 1999

Code Compliance:

The product described herein has demonstrated compliance with the Florida Building Code, 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, as relates to Rule 9B-72.

Systems Limitations:

The product described herein has demonstrated compliance with:

Reference Data:

1. UL 580 / UL 1897 Uplift Resistance Testing
   Farabaugh Engineering & Testing, Inc. (FBC Organization ID# TST1654)
   Report No. T282-09, Dated 10/30/09
2. Certificate of Independence
   By Terrence E. Wolfe, P.E. (No. 44923) @ Force Engineering & Testing, Inc.
   (FBC Organization # ANE ID: 1920)

Underlayment:

MSA “Quick Stick HT” 40 mil peel and stick or approved equal

Roof Panel Fire Rating:

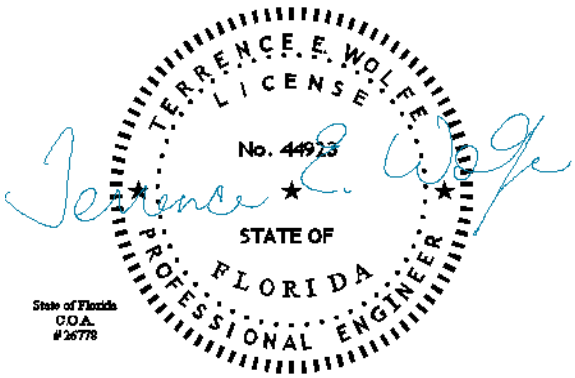
Class B fire exposure rating in accordance with FBC Section 1505.3.

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 FBC 2007 for roof cladding wind loads. These component wind loads for roof cladding are compared to the allowable pressures 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 FBC Chapter 22 for steel, Chapter 23 for wood and Chapter 16 for structural loading.



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