



NEMO|etc.

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ENGINEER

TEST

CONSULT

P.E. EVALUATION REPORT (PEER)

Petersen Aluminum Corp.

102 Northpoint Parkway, Building 106
Acworth, GA 30102
(800) 272-4482

PEER-CCM-002.A

FL47183

Date of Issuance: 12/16/2024

SCOPE:

This P.E. Evaluation Report (henceforth 'PEER') is issued under **F.A.C. Rule 61G20-3** and the applicable rules and regulations governing the use of construction materials in the State of Florida. The documentation submitted has been reviewed by Robert Nieminen, P.E. for use of the product under the Florida Building Code. The product described herein has been evaluated for compliance with the **8th Edition (2023) Florida Building Code** [sections noted herein](#).

DESCRIPTION: Petersen Insulated Metal Roof Panel Systems

LABELING: Labeling shall be in accordance with the requirements of the Accredited Quality Assurance Agency noted herein and [FBC 1703.5](#).

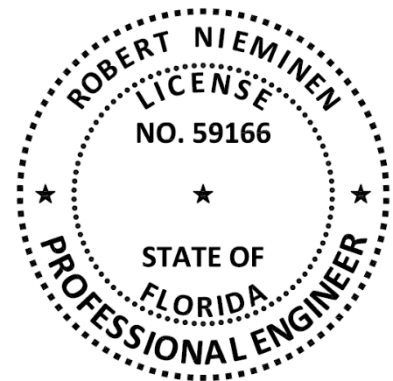
CONTINUED COMPLIANCE: This PEER is valid until such time as the named product(s) changes, the referenced Quality Assurance or production facility location(s) changes, or Code provisions that relate to the product(s) change. Acceptance of our PEERs by the named client constitutes agreement to notify NEMO ETC, LLC of any changes to the product(s), the Quality Assurance, or the production facility location(s). NEMO ETC, LLC requires a complete review of its PEER relative to updated Code requirements with each Code Cycle.

ADVERTISEMENT: "NEMO P.E. Evaluated" may be displayed in advertising literature. If any portion of the PEER is displayed, then it shall be in its entirety.

INSPECTION: Upon request, a copy of this entire PEER shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This PEER consists of pages 1 through 5.

Prepared by:



CERTIFICATION OF INDEPENDENCE:

1. NEMO ETC, LLC does not have, nor does it intend to acquire or will it acquire, a financial interest in any company manufacturing or distributing products it evaluates.
2. NEMO ETC, LLC is not owned, operated or controlled by any company manufacturing or distributing products it evaluates.
3. Robert Nieminen, P.E. does not have nor will acquire, a financial interest in any company manufacturing or distributing products for which the PEERs are being issued.
4. Robert Nieminen, P.E. does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.
5. This is a building code evaluation. Neither NEMO ETC, LLC nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this PEER, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

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STRUCTURAL COMPONENTS - ROOF DECK:
1. SCOPE:

Product Category: Structural Components
Sub-Category: Roof Deck
Product Approval Method: Method 1, Option D: Codified Material, Evaluation by Engineer
Compliance Statement: **Petersen Insulated Metal Roof Panel Systems**, as produced by **Petersen Aluminum Corp.**, have demonstrated compliance with the following sections of the referenced Codes through testing in accordance with the following Standards. Compliance is subject to the [Installation Requirements](#) and [Limitations of Use](#) set forth herein.

2. STANDARDS:

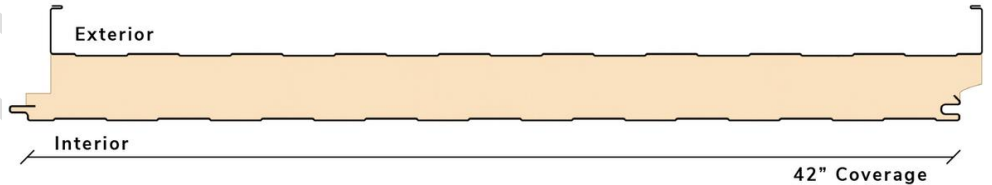
CODE	SECTION	PROPERTY	STANDARD
2023 Florida Building Code	1504.3.2	Wind resistance	ASTM E1592
	1504.7	Impact Resistance	FM 4470
	1507.4.3	Material Standards	ASTM A653, A792
	2603.3	Surface-burning characteristics	ASTM E84 ¹

3. REFERENCES:

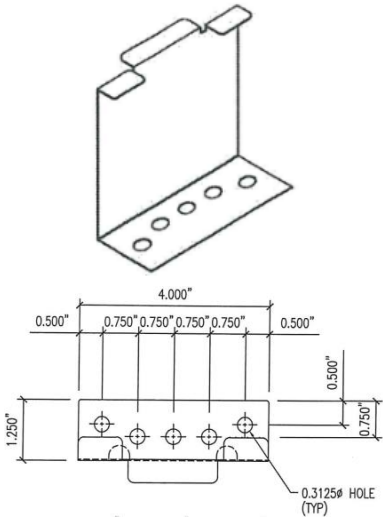
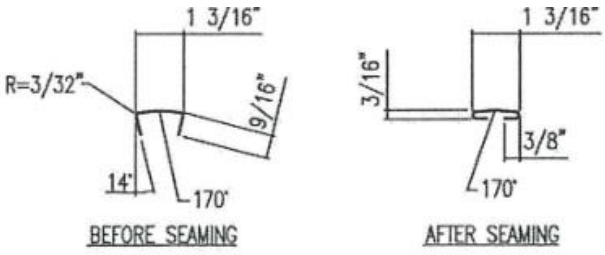
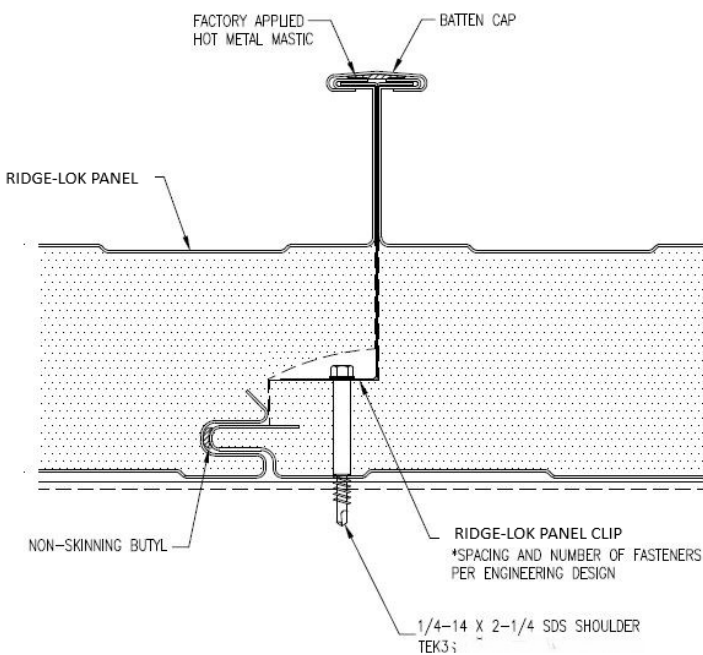
ENTITY	EXAMINATION	REFERENCE	DATE
ITS (TST1585)	ASTM E84	100595219SAT-006D	01/18/2012
FORCE E&T (TST5328)	ASTM E1592	438-0205T-15A,B	09/11/2015
FORCE E&T (TST5328)	FM 4470/4471, Foot Traffic	438-0189T-16	09/21/2016
NEMO	Traceability	FBC PCL	11/19/2024
FM (QUA1860)	Quality Assurance	PR470420	12/11/2024

4. PRODUCT DESCRIPTION:

Petersen Insulated Metal Roof Panel Systems are insulated roof panels consisting of interior and exterior steel 'skins' sandwiching a nominal 2.5 pcf density polyisocyanurate foam core. The panels are mechanically attached to supports using proprietary concealed clips at the interlocking joints.

TABLE 1A: INSULATED METAL PANELS						
PROFILE	THICKNESS (IN.)	COVERAGE WIDTH (IN.)	MATERIALS			
			STEEL 'SKINS'	INSULATION CORE	CONCEALED CLIPS	SEAM CAPS
Ridge-Lok Insulated Metal Panel	2.5 to 6	Max. 42	Min. 26 ga., min. 50 ksi ASTM A792 coated or A653 G90 galvanized steel	Nominal 2.5 pcf polyisocyanurate FSI: 20 SDI: 400	16 ga. x 1-1/4" wide x 4" long galvanized steel at various heights, with pre-punched fastening holes	Min. 24 ga. x 1-3/16" wide x 9/16" high steel with factory-applied hot-melt sealant
						

¹ Numerical ratings as determined by ASTM E84 are not intended to reflect hazards presented by these materials under actual fire conditions.

TABLE 1B: ATTACHMENT DETAILS		
PROFILE	4" WIDE PANEL CLIP	SEAM CAP
Ridge-Lok Insulated Metal Panel		
	SIDLAP ATTACHMENT 	

5. LIMITATIONS:

- 5.1 This is a building code evaluation. Neither NEMO ETC, LLC nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this PEER, or previous versions thereof, is/was used for permitting or design guidance. PEERs are not to be construed as representing any attributes not specifically listed, nor are PEERs to be construed as an endorsement of the subject, or a recommendation for its use. There is no warranty by NEMO ETC, LLC or Robert Nieminen, P.E., express or implied, as to any finding or other matter in this PEER, or as to any product covered by the PEER.
- 5.2 This PEER is not for use in FBC High Velocity Hurricane Zone jurisdictions, as defined in FBC Chapter 2 (Broward and Miami-Dade Counties).
- 5.3 This PEER does not include evaluation of fire classification. Refer to **FBC 1505** or **R902** for requirements and limitations regarding roof assembly fire classification. Refer to **FBC 2603** for requirements and limitations concerning the use of foam plastic insulation.
- 5.4 This PEER does not include evaluation of roof edge termination.
- 5.5 **Wind Resistance:**
- 5.5.1 Limitations relating to design wind pressure resistance are outlined in [Table 2](#).
- 5.5.2 This PEER pertains to the roof panel and its connecting clips. The design professional shall determine the roof cladding design pressure requirements for comparison to the allowable pressures listed in [Table 2](#), and shall analyze the panel fasteners for pullout for use atop the specified structural elements. The structural framing shall be verified by and acceptable to the Authority Having Jurisdiction.
- 5.5.2 “MDP” = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads. Refer to **FBC 1609** for determination of project-specific design wind pressures. The MDP for the selected installation shall meet or exceed the design wind pressure requirement (P_{asd}) for the project for each pressure zone.
- 5.5.3 Linear interpolation by a qualified design professional between rated attachments using the same support type and clip-length is permissible.
- 5.5.4 Racking and shear resistance is outside the scope of this PEER.
- 5.6 Roof slope shall comply with **FBC 1507.4.2** and **Petersen Aluminum Corp** requirements.

TABLE 2: SYSTEM DESCRIPTION AND ALLOWABLE DESIGN PRESSURES								
RIDGE-LOK INSULATED METAL PANELS								
SYSTEM No.	SUPPORT TYPE (SEE 5.3)	PANEL			ATTACHMENT			MDP (PSF)
		MATERIAL	THICKNESS (IN.)	WIDTH (IN.)	CLIP LENGTH (IN.)	CLIP SPACING (INCH O.C.)	FASTENERS	
1	Min. 14 ga., Grade 50 steel	Min. 26 ga. steel	Min. 2.5	Max. 42	4	90	Three (3) corrosion resistant ¼-14 HWH self-drilling shoulder screws per clip	-39.0
2	Min. 14 ga., Grade 50 steel	Min. 26 ga. steel	Min. 2.5	Max. 42	4	60	Three (3) corrosion resistant ¼-14 HWH self-drilling shoulder screws per clip	-57.3

- 5.7 For existing substrates, the Authority Having Jurisdiction may require fasteners be tested in the existing substrate for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system.
- 5.8 All products in the roof assembly shall have QA audit in accordance with the **F.A.C. Rule 61G20-3**.

6. INSTALLATION:

Petersen Insulated Metal Roof Panel Systems shall be installed in accordance with **Petersen Aluminum Corp.** published installation instructions, subject to the [Limitations of Use](#) noted herein.

7. BUILDING PERMIT REQUIREMENTS:

As required by the Building Official or Authority Having Jurisdiction to properly evaluate the installation of this product.

8. MANUFACTURING PLANTS:

Waller, TX

9. QUALITY ASSURANCE ENTITY:

FM Approvals (QUA1860), (781) 255-4725, Joanna.blaney@fmglobal.com

- END OF PEER -