TRIDENT
BUILDING SYSTEMS, LLC
A BEHLEN GROUP COMPANY

Product Evaluation Report for

24 Ga. SurLok Roof Panel over open framing

Florida Product Approval # 6617.3

Florida Building Code 2023
Per Rule 61G20-3
Method: 1-D

Category: Structural Components

Subcategory: Roof Deck

Compliance Method: 61G20-3.005(1)(d)

Non-HVHZ

Product Manufacturer:
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Engineer Evaluator:
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1/2/2024, 8:21:25 AM

This document has been electronically sealed and digitally signed by Scott D. Close, P.E., using my digital signature. Printed copies are not considered signed and sealed. The signature must be verified on any electronic document.

SCOTT D. CLOSE
LICENSE
No. 65849
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

MBMA METAL BUILDING MANUFACTURERS ASSOCIATION MEMBER

IAS ACCREDITED Metal Building Systems AC 472

Compliance Statement:	The product as described in this report has demonstrated compliance with the FBC 2023, Sections 1504.3.2, 1504.7, 1507.1.1.1 (chart).
Product Description:	SurLok Roof Panel, Minimum 24 Ga. Steel, 16" wide, standing seam structural roof panel. Structural Application.
Panel Materials/Standards:	Material: 24 Ga. Steel. ASTM A792 or ASTM A653 conforming to FBC 2023 Section 1507.4.3. Paint finish optional. Yield Strength: Min. 50.0 ksi Corrosion Resistance: Panel Material shall comply with FBC 2023, Section 1507.4.3.
Panel Dimensions:	Thickness: 0.0235" Width: 16" Maximum Coverage Rib Height: 2" tall Panel Seam: TripleLok with mechanical seamer
Roof Panel Clips:	Product Name: MC1203 Slider Clip Type: Top: 4-1/4" long 22Ga. galvanized Base: 2-1/4" long 16 Ga galvanized Corrosion Resistance: Per Florida Building Code 2023 Section 1506.7
Panel Fastener:	(2) #12-14 x 1-1/4" HWH SD per clip or approved equal. Corrosion Resistance: Per FBC 2023, Section 1506.6, 1507.4.4
Substrate Description:	Min. 16 Ga. Steel Framing. Framing must be designed in accordance with FBC 2023.
Design Pressures:	*see roof panel uplift load table
Code Compliance:	The product described herein has demonstrated compliance with the FBC 2023, Section 1504.3.2, 1504.7, 1507.1.1.1 (chart).
Evaluation Report Scope:	The product evaluation is limited to compliance with the structural wind load requirements of the FBC 2023, as relates to Rule 61G20-3.
Performance Standards:	The product described herein has demonstrated compliance with: 1. ASTM E1592-05 (2012) Test method for structural performance of sheet metal and siding systems by uniform static air pressure difference. 2. FM 4471-92 Foot Traffic Resistance Test.
Reference Data:	1. ASTM E1592-01 Project C1432-1 dated 12-28-05 by Encon Technology, Inc. 2. FM 4471-95, Project 1D7A7.AM, dated 12-31-98 by Factory Mutual Research Corporation
Test Standard Equivalency:	1. The ASTM E1592-01 test standard is equivalent to the ASTM E1592-05 (2012) test standard. 2. The FM 4471-95 test standard is equivalent to the FM 4471-92 test standard.

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 FBC 2023, 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:	Roof Shear Diaphragm values are outside the scope of this report.
Design Procedure:	Design wind loads shall be determined for each project in accordance with FBC 2023 Section 1609 or ASCE 7-22 using allowable stress design. These design wind loads for roof cladding are compared to the allowable pressures shown below. 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 2023 Chapter 22 for steel and Chapter 16 for structural loading.

Roof Panel Wind Uplift Load Span Table
ASTM E1592 Testing

24 Ga. SurLok Roof Panel (non-HVHZ)
16" Wide Panel w/ TripleLok Seam

Span	1592 Test Load	Design Load (1)
2'-0" (2)	232.3	136.4
2'-6"	N/A	123.1
3'-0"	N/A	109.8
3'-6"	N/A	96.5
4'-0"	N/A	83.2
4'-6"	N/A	69.9
5'-0" (2)	96.5	56.6

Notes:

1. Loads were derived from test conducted in accordance with ASTM E1592.
2. Values are interpolated from tests performed at spans of 2'-0" and 5'-0", tests performed by Encon Technology Inc.
3. Design load has a safety factor of 1.7 applied.
4. Design loads have not been increased by 33% for wind loads.
5. The values shown above do not include fastener pullout. Clip attachment must be designed separately.

Clip Type:

MC1203 Slider Clip, 4-1/4" long
w/ (2) #12-14 screws per clip