



Product Evaluation Report for

24 Ga. PBR Roof Panel over open framing

Florida Product Approval # 6617.2

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

Category: Structural Components

Subcategory: Roof Deck

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

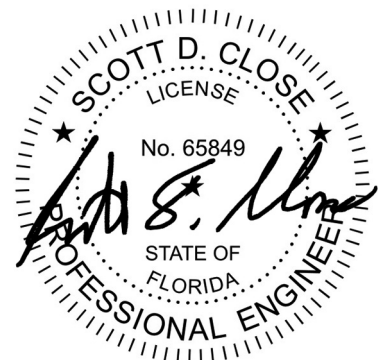
HVHZ

Product Manufacturer:
Trident Building Systems, LLC
2812 Tallevast Road
Sarasota, FL 34243

1/2/2024, 8:19:35 AM

Engineer Evaluator:
Scott D. Close, P.E., FL # 65849
2812 Tallevast Road
Sarasota, FL 34243

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.



Validator:
Locke Bowden, P.E., FL # 49704
9450 Alysburry Place
Montgomery, AL 36117

2812 Tallevast Road, Sarasota, Florida 34243 * Phone (941) 755-7073 * Fax (941) 755-3067
Website: www.tridentbuildingsystems.com
Florida License CGC059531



Compliance Statement:	The product as described in this report has demonstrated compliance with the FBC 2023 including High Velocity Hurricane Zone (HVHZ), Sections 1504.3.2, 1504.7, 1507.1.1.1 (chart), 1518, 1523.
Product Description:	PBR Wall Panel, Minimum 24 Ga. Steel, 36" wide, through fastened structural wall panel. Structural Application.
Panel Materials/Standards:	Material: Minimum 24 Ga. Steel, panel material shall comply with FBC 2023 Section 1405.2. Yield Strength: Min. 50.0 ksi
Panel Dimensions:	Thickness: 0.0260" min. Width: 36" coverage Rib Height: 1-1/4" major rib at 12" O.C.
Panel Fastener:	#12-14 x 1-1/4" HWH SD with sealing washer at 12"-12"-12" fastener pattern. Panel side laps fastened together with 1/4"-14 x 7/8" HWH SD with sealing washer at 18" O.C. Corrosion Resistance: Per FBC 2023.
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, Sections 1504.3.2, 1504.7, 1507.1.1.1 (chart), 1518, 1523.
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. TAS 125-03, Test method for structural performance of sheet metal and siding systems by uniform static air pressure difference. 2. FM 4471-92 App. G, Susceptibility to Leakage 3. TAS 201-94, Impact testing.
Reference Data:	1. TAS 125-03, Test report 34-0229T-11A-C dated 10-3-11 by Force Engineering & Testing, Inc. 2. FM 4471 App. G for roof slopes less than 2:12: Test report 34-0229T-11H dated 10-26-11 by Force Engineering & Testing, Inc. 3. TAS 201-94, Impact Testing: Test report 34-0229T-11D-G dated 10-5-11 by Force Engineering & Testing, Inc.
Test Standard Equivalency:	1. 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.
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.
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

Panel Type=Trident Building Systems 24ga PBR Roof Panel

EI=	1,122,008	lb-in ²
HVHZ Deflection Limit=	240	
Factor of Safety=	2.0	

Span (ft)	HVHZ Allow. Defl. (in)		Test Load (psf)	HVHZ Design Load (psf)	
2.00	0.100		290.0	145.0	
2.50	0.125		N/A	127.1	
3.00	0.150		N/A	109.2	
3.50	0.175		N/A	91.3	
4.00	0.200		N/A	73.4	
4.50	0.225		N/A	51.6	
5.00	0.250		120.0	37.6	