

**EVALUATION REPORT OF
ALL WEATHER INSULATED PANELS
HR3 & HR5 INSULATED ROOF PANELS**

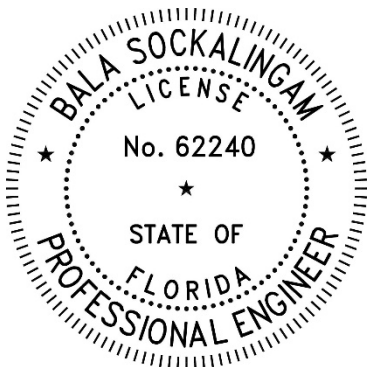
**FLORIDA BUILDING CODE 8TH EDITION (2023)
FLORIDA PRODUCT APPROVAL
FL 14700.1-R3
STRUCTURAL COMPONENTS
STRUCTURAL ROOF**

**Prepared For:
All Weather Insulated Panels
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**This report consists of
Evaluation Report (3 Pages including cover)
Installation Details (11 Pages)
Load Span Table (1 Page)**

**Report No. C2723-1
Date: 10.21.2023**



This item has been digitally signed and sealed by Bala Sockalingam, PE, on the date indicated.

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Manufacturer:	All Weather Insulated Panels
Product Name:	HR3 and HR5 insulated roof panels
Panel Description:	HR3 and HR5 panels are factory-assembled, metal faced, sandwich panels with a chemically bonded continuously foamed-in-place foam plastic core. Maximum 40" coverage. Panel thickness: 2.5", 4", 5" & 6".
Panel Core:	Polyisocyanurate (ISO) foam core designated as All Weather Insulated Panel Proprietary Blend Formulation. Nominal core density is 2.2 pcf with flame spread index of 20 and smoke-developed index of 170 when tested in accordance with ASTM E84-19b.
Exterior skin:	Min. 26 ga., 33 ksi galvanized coated steel (ASTM A653), galvalume AZ50 or AZ55 coated steel (ASTM A792) or stainless steel (ASTM A240) with 1-3/8" high rib profiles with embossed, smooth or coated finish. HR3 consisted of three ribs spaced at 20" o.c. and HR5 consisted of five ribs spaced at 10" o.c. Minimum base metal thickness is 0.017".
Interior skin:	Min. 26 ga., 33 ksi galvanized coated steel (ASTM A653), galvalume AZ50 or AZ55 coated steel (ASTM A792) or stainless steel (ASTM A240) with 'Mesa' profiles with embossed or smooth finish. Minimum base metal thickness is 0.017".
Support Description:	Min. 14 ga., 50 ksi steel section (Must be designed by others)
Slope:	1/2:12 or greater in accordance with FBC 2023 Section 1507.4.2 and with manufacturers recommendations. Butyl tape sealant (1/2" x 3/32") must be used in the panel sidelaps.
Design Pressure:	Allowable uplift loads for min 2.5" thick panels are shown in the load span table. The allowable loads were determined from full scale tests with safety factor of 2.
Panel Attachment:	Panels will be fastened to min. 14 ga. steel supports with 1/4"-14 hex head self-drilling screws through SW-01 roof saddle washers and ribs spaced at 20" o.c. Fastener shall be of sufficient length to penetrate through the support a minimum of 3/4".
Washer:	HR series SW-01 roof saddle washers are fabricated from 16 ga. galvanized steel with (1) 5/16" diameter hole.
Sidelap Attachment:	1/4"-14 x 7/8" long Type 1 hex head self-drilling screw with washer at max. 16" o.c. between panel fasteners.

Test Standards:	Roof assemblies were tested in accordance with ASTM E1592-05(2017) 'Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure' and Section 5.4 'Foot Traffic Resistance' of FM 4471 'Approval Standard for Class I Panel Roofs'.
Test Equivalency:	The test procedures in ASTM E84-19b comply with test procedures prescribed in ASTM E84-18b.
Code Compliance:	The product described herein has demonstrated compliance with FBC 2023 Section 1507.4 and 2603.3.
Product Limitations:	Design wind loads shall be determined for each project in accordance with FBC 2023 Section 1609 or ASCE 7-22 using allowable stress design. The maximum support spacing listed herein shall not be exceeded. The design pressure for reduced support spacing may be computed using rational analysis prepared by a Florida Professional Engineer or AWIP load span table. This evaluation report is not applicable in High Velocity Hurricane Zone. Fire classification is not within the scope of this Evaluation Report. Refer to FBC 2023 Section 1505 and current approved roofing materials directory or ASTM E108/UL790 report from an accredited laboratory for fire ratings of this product.
Supporting Documents:	ASTM E1592 Test Report ENCON Technology Inc. C2512-2, Reporting Date 1/31/2022 FM 4471 Test Report FM Approvals Project ID 3030915, Reporting Date 6/13/2008 ASTM E84 Test Report Element Materials Technology Project ID 19-002-712(F), Reporting Date 12/12/2019

ALL WEATHER INSULATED PANEL
HR3 and HR5 Roof Panels
Allowable Uplift Loads

Panel Description	Support Spacing	Allowable Uplift Load (psf)
HR3 or HR5 Panel Min. 26 ga. Exterior & Interior Skins Yield Stress: 33 ksi Panel Core Thickness: Min 2.5", 3" 4", 5" & 6" Support Thickness: Min 16 ga.	2'-0"	-172.2
	2'-6"	-147.2
	3'-0"	-122.7
	3'-6"	-105.1
	4'-0"	-92.0
	4'-6"	-81.8
	5'-0"	-73.6
	5'-6"	-66.9
	6'-0"	-61.3
	6'-6"	-56.6
	7'-0"	-52.6
	7'-6"	-49.1
	8'-0"	-46.0

Notes:

1. The allowable uplift loads were determined from full scale tests with safety factor of 2
2. Allowable load is applicable to two or more span conditions.
3. Fastener pullout capacity must be checked for the above loads.
4. Panels must be installed as per Evaluation Report FL 14700.1 and AWIP current installation procedure.
5. The structural capacity of support are not considered and must be examined independently by others.