EVALUATION REPORT OF
FALK PANEL
SSR-42 PANELS

FLORIDA BUILDING CODE 7TH EDITION (2020)
FLORIDA PRODUCT APPROVAL
FL 41819.2
STRUCTURAL COMPONENTS
STRUCTURAL ROOF

Prepared For:
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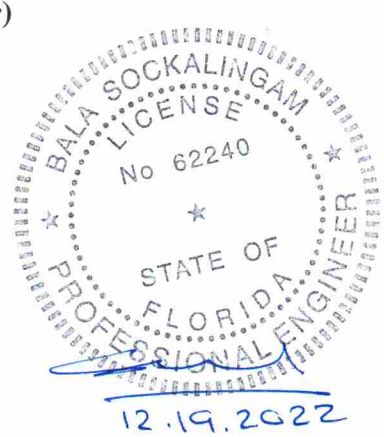
This report consists of
Evaluation Report (3 Pages including cover)
Installation Details (1 Page)
Load Span Table (1 Page)



Report No. C2602-3
Date: 12.19.2022

Manufacturer:	FALK Panel
Product Name:	SSR-42 panels
Panel Description:	SSR-42 panels are factory-assembled, metal faced, sandwich panels with a chemically bonded continuously foamed-in-placed foam plastic core. Maximum 42" coverage. Panel thickness: 3", 4", 5" & 6".
Panel Core:	Polyisocyanurate (ISO) foam core designated as Dow 1201 with Normal and Isosiclo Pentane blowing agent. Nominal core density is 2.2 pcf with flame spread index of 20 and smoke-developed index of 300 when tested in accordance with ASTM E84-18b.
Exterior skin:	Min. 26 ga., 33 ksi galvanized coated steel (ASTM A653), galvalume AZ50 or AZ55 coated steel (ASTM A792) with embossed, smooth or coated finish. The exterior profile is 'Box' profile with 1.9" high ribs at the panel sidelap. Corrosion resistant as per FBC 2020 Section 1507.4.3. 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) with 'Box' profiles and embossed or smooth finish. Corrosion resistant as per FBC 2020 Section 1507.4.3. Minimum base metal thickness is 0.017".
Support Description:	Min. 14 ga., 50 ksi steel section (Must be designed by others)
Slope:	1/4:12 or greater in accordance with FBC 2020 Section 1507.4.2 and with manufacturer recommendations.
Design Pressure:	Inward and uplift loads are shown in the load span table. The allowable loads were determined from full scale tests with safety factor of 2.
Standard Fastening:	Panels will be fastened along the panel sidelap at each support with SSR series clip appropriate for use with the panel thickness using (2) #12-14 x 2.2" long self-drilling fasteners with bond seal washer and DP3 drill tip.
Panel Clips:	20 ga. (0.0365" thick), 3.9", 4.9", 5.9" or 6.9" tall, 4" wide stamped clip.
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 FM 4470 (2016) Section 4.6 'Resistance to Foot Traffic'. The mechanical properties of the panels were tested in accordance with ASTM E72-15 "Standard Test Methods of Conducting Strength Tests

of Panels for Building Construction" as outlined in Acceptance Criteria for Sandwich Panels AC04.

Test Equivalency: The test procedures in ASTM E84-19b comply with test procedures prescribed in ASTM E84-16.

The test procedures in ASTM E1592-05(2017) comply with test procedures prescribed in ASTM E1592-05(2012).

Code Compliance: The product described herein has demonstrated compliance with FBC 2020 Section 1507.4 and 2603.3.

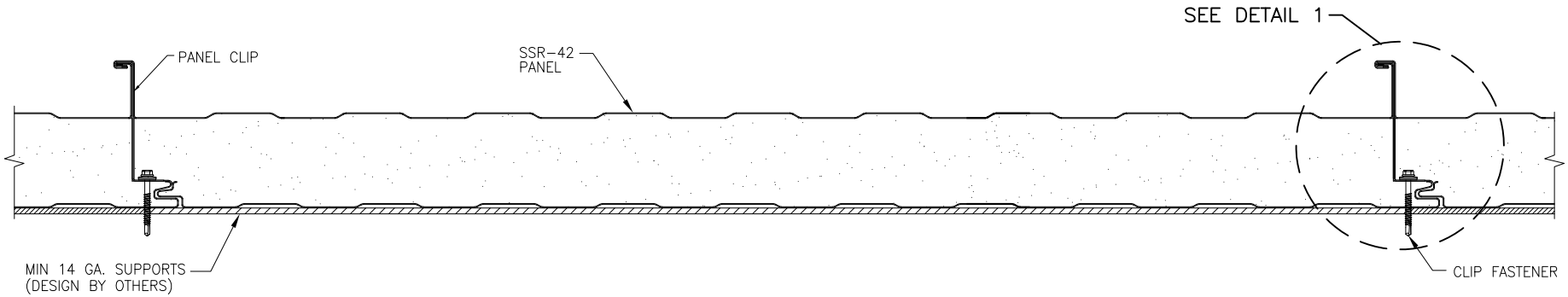
Product Limitations: Design wind loads shall be determined for each project in accordance with FBC 2020 Section 1609 or ASCE 7-16 using allowable stress design. The maximum clip spacing listed herein shall not be exceeded. The design pressure for reduced clip spacing may be computed using rational analysis prepared by a Florida Professional Engineer or FALK load span table. This evaluation report is not applicable in High Velocity Hurricane Zone. Fire classification is not within scope of this Evaluation Report. Refer to FBC 2020 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.
C2524-1, Reporting Date 4/14/2022

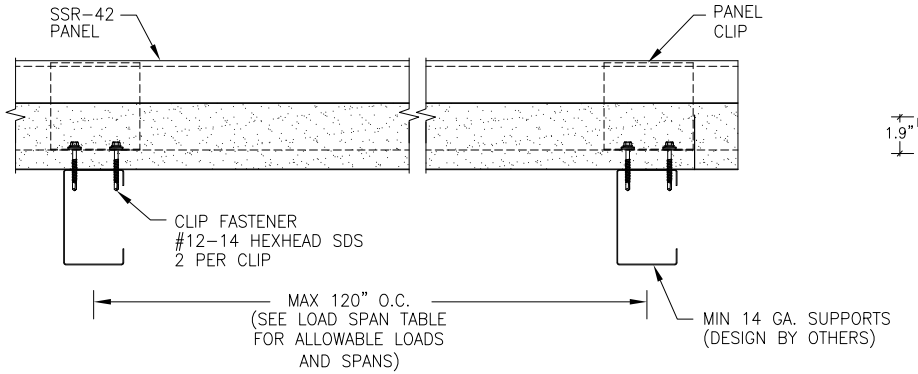
ASTM E72 Test Reports
ENCON Technology Inc.
C2527-1, Reporting Date 3/26/2022
C2527-3, Reporting Date 4/18/2022

FM 4470 Test Report
ENCON Technology Inc.
C2593-1, Reporting Date 12/14/2022

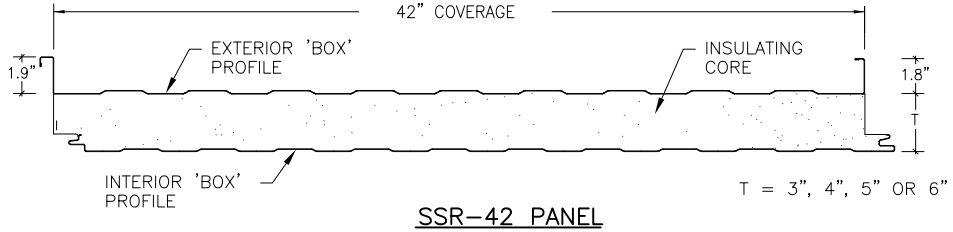
ASTM E84 Test Report
QAI Laboratories Inc.
TJ8454-1, Reporting Date 3/1/2022



TYPICAL PANEL INSTALLATION X-SECTION

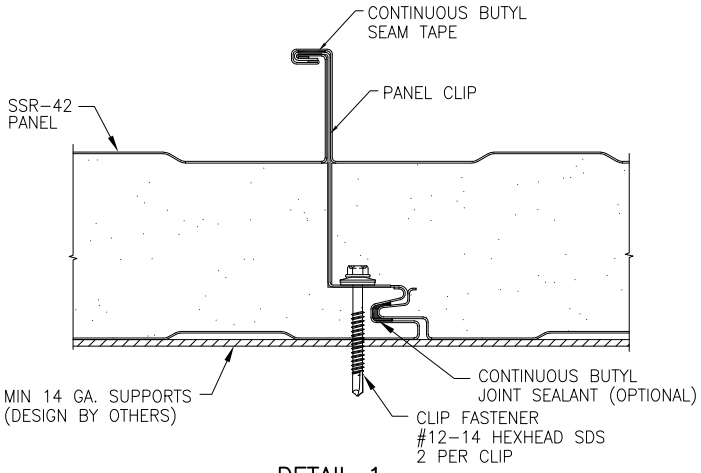


TYPICAL SIDE VIEW

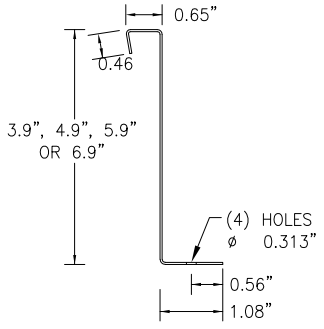


SSR-42 PANEL

MIN 26 GA. EXT - INT PROFILES



DETAIL 1



20 GA. STANDARD CLIP
4" LONG

GENERAL NOTES:

1. THIS STRUCTURAL ROOF PANEL SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH FLORIDA BUILDING CODE (FBC). THE DESIGN PRESSURES AS DETERMINED FROM SECTION 1609 AND ASCE 7-16 MUST BE MULTIPLIED BY 0.6.
2. PANELS ARE MAX 42" WIDE, CONSIST OF MIN. 26 GA. (t = 0.017" MIN.) EXTERIOR OR INTERIOR STEEL SKINS (Fy = MIN. 33 KSI) AND ARE SANDWICHED WITH FOAMED-IN-PLACE NON-CFC 2.4 LB/CU. FT. DENSITY POLYISOCYANURATE.
3. PANELS SHALL BE INSTALLED OVER ROOF SUPPORT AS SPECIFIED ON THIS DRAWING.
4. PANELS MUST BE INSTALLED OVER MIN. 2 SUPPORTS. ENDLAPS MAY BE PRESENT AT CENTERLINE OF SUPPORTS PROVIDING THE SEAMS ARE FLASHED & PROPERLY SEALED PER FALK SPECIFICATIONS AND EACH PANEL END IS SECURED PER THIS DRAWING.
5. REQUIRED DESIGN WIND LOADS SHALL BE DETERMINED FOR EACH PROJECT. THIS PANEL SYSTEM MAY NOT BE INSTALLED WHEN THE REQUIRED DESIGN WIND LOADS ARE GREATER THAN THE ALLOWABLE WIND LOADS SPECIFIED ON LOAD SPAN TABLE.
6. ALL CLIPS AND SCREWS ARE CORROSION RESISTANT.
7. THE SUPPORTING STRUCTURE, OVER WHICH THE PANELS ARE TO BE INSTALLED, MUST BE MINIMUM 14 GAGE (MIN. 0.071") STEEL WITH MIN. Fy = 50 KSI.
8. THESE ROOF PANELS SHALL NOT BE CONSIDERED TO OR BE USED FOR TRANSFER OF DIAPHRAGM ACTION OF ROOF TO SUPPORTING STRUCTURE.

DRAWN BY: B.S.	CHECKED BY: M.M.
PLOT:	DATE: 12/16/22

NO.	REVISION DESCRIPTION	BY	DATE

DRAWING TITLE
SSR-42 PANEL

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DRAWING NO. 2602-3 | REV.

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FALK Panel
SSR-42 Panel
Allowable Inward & Uplift Loads

Panel Description	Support Spacing (in)	Allowable Inward Load (psf)	Allowable Uplift Load (psf)
SSR-42 Panel Min. 26 ga. Exterior & Interior Skins Panel Core Thickness: 3", 4", 5" & 6"	36	116.8	**51.2**
	42	100.1	49.2
	48	87.6	47.1
	54	77.9	45.1
	60	70.1	43.0
	66	63.7	40.9
	72	58.4	37.5
	78	53.9	34.6
	84	50.1	32.1
	90	46.7	30.0
	96	43.8	28.1
	102	41.2	26.5
	108	38.9	25.0
	114	36.9	23.7
	120	35.0	**22.5**

Notes:

1. Allowable load is the lowest value of panel strength, connection strength & deflection limit of L/180.
2. Allowable load is applicable to two or more span conditions.
3. Panels are fastened to min. 14 gage steel with SSR standard clips and (2) 12-14 SDS DP 3. For 12 gage or thicker steel, #12-24 SDS DP 5 may be used. In lieu of self-drilling screws, self-tapping screws may be used.
4. The bold numbers indicate design loads obtained from SSR test reports. Inward loads obtained from HFW-40 panel test report.
5. Panels must be installed as per Evaluation Report FL 41819.2 and FALK Panel's current installation procedure.
6. The structural capacity of support are not considered and must be examined independently by others.
7. Minimum bearing width of support is 2.25".

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