EVALUATION REPORT OF UNION CORRUGATING COMPANY '26 GA. PBR OR R PANEL'

FLORIDA BUILDING CODE 5TH EDITION (2014) FLORIDA PRODUCT APPROVAL FL 18716.3 ROOFING METAL ROOFING

Prepared For: Union Corrugating Company P. O. Box 229 Fayetteville, NC 28302 Telephone: (910) 483-0479 Fax: (910) 483-8897

Prepared By:
Bala Sockalingam, Ph.D., P.E.
Florida Professional Engineer #62240
1216 N Lansing Ave., Suite C
Tulsa, OK 74106
Telephone: (918) 492-5992
FAX: (866) 366-1543

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

Report No. C2059-3 Date: 10.24.15



Manufacturer: Union Corrugating Company

Product Name: PBR or R Panel

Panel Description: 36" wide coverage with (4) 1-1/4" high ribs

Materials: Min. 26 ga., 80 ksi steel or min. 24 ga., 50 ksi steel. Galvanized coated

steel (ASTM A653) or Galvalume coated steel (ASTM A792) or

painted steel (ASTM A755).

Deck Description: Min. 15/32" thick plywood or min. 3/4" thick wood plank (min SG of

0.42) for new and existing constructions. Designed by others and

installed as per FBC 2014.

Underlayment: Minimum underlayment as per FBC 2014 Section 1507.4.5.1

Slope: 1/2:12 or greater in accordance with FBC 2014 Section 1507.4.2

Design Uplift Pressure: 30.0 psf @ fastener spacing of 48" o.c. (Factor of Safety = 2) 161.5 psf @ fastener spacing of 6" o.c.

Panel Attachment:

Type: #9-15 or #10-14 hex head wood screws with sealed washer. Fastener

shall be of sufficient length to penetrate through the deck a minimum

of 1/4".

At intermediate @ 12" o.c. across panel width
At panel ends @ 7"-5"-7" o.c. across panel width

Sidelap Attachment: $\frac{1}{4}$ "-14 x 7/8" long SDS with washer @ 18" o.c.

Test Standards: Roof assembly tested in accordance with UL580-06 'Uplift Resistance

of Roof Assemblies' & UL1897-04 'Uplift Tests for Roof Covering

Systems'.

Code Compliance: The product described herein has demonstrated compliance with FBC

2014 Section 1507.4

Product Limitations: Design wind loads shall be determined for each project in accordance

with FBC 2014 Section 1609 or ASCE 7-10 using allowable stress design. The maximum fastener spacing listed herein shall not be exceeded. The design pressure for reduced fastener spacing may be computed using rational analysis prepared by a Florida Professional Engineer or based on Union 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 2014 Section 1505 and current approved roofing materials directory or

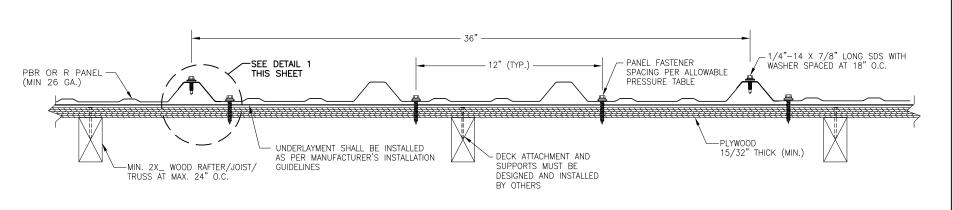
FL 18716.3 C2059-3 10.24.15 Page 3 of 3

ASTM E108/UL790 report from an accredited laboratory for fire

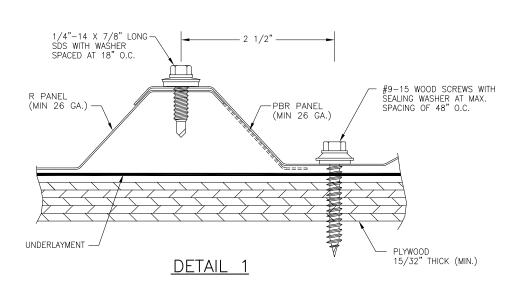
ratings of this product.

Supporting Documents: UL 580 & UL 1897 Test Report

Farabaugh Engineering and Testing Inc Project No. T278-15, Reporting Date 10/9/15



TYPICAL PANEL INSTALLATION X-SECTION



ALLOWABLE UPLIFT PRESSURE

PANEL FASTENERS SPACING ALONG RIB (IN)	PRESSURE (PSF)
48"	30.0
6"	161.5

GENERAL NOTES:

- 1. ARCHITECTURAL ROOF PANEL HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC).
- 2. ROOF PANELS SHALL BE MIN. 26 GA. EFFECTIVE COVERING WIDTH OF PANEL = 36".
- 3. ROOF PANELS SHALL BE INSTALLED OVER SHEATHING & STRUCTURE AS SPECIFIED ON THIS DRAWING.
- 4. 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 LOAD TABLE.
- 5. ALL FASTENERS MUST BE IN ACCORDANCE WITH THIS DRAWING & THE FLORIDA BUILDING CODE. IF A DIFFERENCE OCCURS BETWEEN THE MINIMUM REQUIREMENTS OF THIS DRAWING & THE CODE, THE CODE SHALL CONTROL.
- RAFTERS/JOISTS/TRUSSES MUST BE DESIGNED TO WITHSTAND WIND LOADS AS REQUIRED FOR EACH APPLICATION AND ARE THE RESPONSIBILITY OF OTHERS.

DRAWN BY: CHECKED BY:

2059-3 PAGE NO. 1 OF 1

Union Corrugating Company PBR or R Panel Uplift Loads (Min 26 ga.)

Description	Fastener Spacing	Uplift Design
-	along panel length	Load
	(in)	(psf)
Coverage width: 36"	6	161.5
Panel fasteners spaced at 12"	9	152.1
o.c. across width	12	120.0
	15	96.0
•	18	80.0
2	21	68.6
	24	60.0
	27	53.3
	30	48.0
1	33	43.6
	36	40.0
	39	36.9
	42	34.3
,	45	32.0
	48	30.0

Notes:

- 1. The bold numbers indicate design loads calculated from test data with safety factor of 2.
- 2. Panels must be installed as per Evaluation Report FL 18716.3 and Union current installation procedure.

