## EVALUATION REPORT OF UNION CORRUGATING COMPANY '26 GA. 7/8" CORRUGATED PANEL'

## FLORIDA BUILDING CODE 7TH EDITION (2020) FLORIDA PRODUCT APPROVAL FL 29467.1-R1 ROOFING METAL ROOFING

Prepared For: Union Corrugating Company 701 S. King St. Fayetteville, NC 28301 Telephone: (910) 483-0479 Fax: (910) 483-1091

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. C2402-1 Date: 10.9.2020



Manufacturer: Union Corrugating Company

Product Name: 7/8" Corrugated Panel

Panel Description: (13) 7/8" high ribs spaced at 2.67" o.c. with coverage width of 29.33"

Materials: Minimum 26 ga., 50 ksi steel. Galvanized coated steel (ASTM A653) or Galvalume coated steel (ASTM A792) or painted steel (ASTM A755). Corrosion resistant as per FBC 2020 Section 1507.4.3.

Deck Description: Min. 7/16" thick OSB or min. 15/32" thick APA rated plywood or min. <sup>3</sup>/<sub>4</sub>" thick wood plank (min SG of 0.42) for new and existing constructions. Designed by others and installed as per FBC 2020.

New Underlayment: Minimum underlayment as per FBC 2020 Section 1507.4.5.1. Required for new construction.

Existing Underlayment:One layer of asphalt shingles over one layer of #30 felt. For reroofing<br/>construction only.

Slope: 1/2:12 or greater in accordance with FBC 2020 Section 1507.4.2.

Design Uplift Pressure: 41.6 psf @ fastener spacing of 24" o.c. (Factor of Safety = 2) 115.2 psf @ fastener spacing of 8" o.c.

Panel Attachment: #10-14 wood screw with washer at max 8" o.c. across panel width through panel ridge or valley at all locations. Fasteners are corrosion resistant as per FBC 2020 Section 1507.4.4. For new construction, minimum fastener length through ridge is 2" and through valley is 1.5". For existing construction, fastener shall be of sufficient length to penetrate through the deck a minimum of 3/8".

Test Standards: Roof assembly tested in accordance with TAS 125-03 'Standard Requirements for Metal Roofing Systems'.

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

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 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

FL 29467.1-R1 C2402-1 10.9.2020 Page 3 of 3

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: TAS 125-03 Test Report Farabaugh Engineering and Testing Inc. Project No. T165-19, Reporting Date 4/17/19



## UNION CORRUGATING COMPANY 7/8'' Corrugated Panel Uplift Loads (Min 26 ga.)

Description	Fastener Spacing	Allowable Uplift
	along Panel Length	Load
	(in)	(psf)
Max Coverage width: 29.33"	8	115.2
	10	99.7
Panel Fasteners #10-14 hex head wood screws with sealed washer	12	83.1
	14	71.2
	16	62.3
	18	55.4
Panel fasteners spaced at	20	49.9
max. 8" o.c. across panel	22	45.3
width through ridge or valley	24	41.6

## 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 29467.1 and Union current installation procedure.



1216 N Lansing Ave., Suite C Tulsa, Ok 74106 918 492 5992 Bala Sockalingam, Ph.D., P.E. FL 62240