

**EVALUATION REPORT OF  
UNION CORRUGATING COMPANY  
'NOM 0.032" THICK ALUMINUM ADVANTAGE-LOK II'**

**FLORIDA BUILDING CODE 6TH EDITION (2017)  
FLORIDA PRODUCT APPROVAL  
FL 20484.3-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. C2175-3  
Date: 8.23.2017**



Manufacturer: Union Corrugating Company

Product Name: Aluminum Advantage-Lok II Panel

Panel Description: Max. 16.375" wide coverage with 1" high ribs

Materials: Nom. 0.032" thick (min.) 3004-H14 or 3105-H24 Alloy (ASTM B209).

Deck Description: Min. 7/16" thick OSB or min. 15/32" thick APA rated 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 2017.

New Underlayment: Minimum underlayment as per FBC 2017 Section 1507.4.5.1. Required for new construction.

Existing Underlayment: (Optional) One layer of asphalt shingles over one layer of #30 felt. For reroofing construction only.

Slope: 2:12 or greater in accordance with FBC 2017 Section 1507.4.2.

Design Uplift Pressure: (Factor of Safety = 2)  
22.5 psf at seam fastener spacing of 18.5" o.c. along seam  
86.0 psf at seam fastener spacing of 4.63" o.c. along seam  
93.5 psf at seam fastener spacing of 4.63" o.c. along seam with 3/8" diameter continuous bead sealant in panel seam in min. 15/32" thick APA rated plywood

Seam Fastener: #10-13 pancake head wood screws along panel seam. Fastener shall be of sufficient length to penetrate through the deck a minimum of 1/4". Fasteners can be located in fastener slots or through solid portion of fastening flange.

Seam Sealant: Advanced Polymer Sealant APS 500. In lieu of APS 500, adhesive/sealant with greater or equal tensile properties may be used.

Test Standards: Roof assembly tested in accordance with UL580-06 'Uplift Resistance of Roof Assemblies' & UL1897-04 'Uplift Tests for Roof Covering Systems'.

Test Equivalency: The test procedures in UL 1897-04 comply with test procedures prescribed in UL 1897-12.

Code Compliance: The product described herein has demonstrated compliance with FBC 2017 Section 1507.4.

**Product Limitations:** Design wind loads shall be determined for each project in accordance with FBC 2017 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 2017 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:** UL580 & UL1897 Test Reports  
Farabaugh Engineering and Testing Inc.  
Project No. T274-15, Reporting Date 9/30/15  
Project No. T284-15, Reporting Date 10/16/15

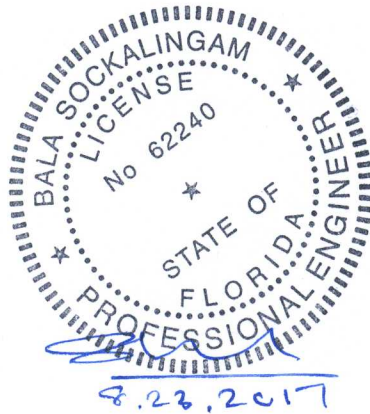


**Union Corrugating Company**  
**Aluminum Advantage Lok II Panel Uplift Loads**  
**(Nom. 0.032" Thick)**

Description	Fastener Spacing along panel length (in)	Uplift Design Load (psf)
Coverage width: 16.375"	<b>4.63</b>	<b>86.0</b>
	6.94	60.0
	9.25	45.0
	11.56	36.0
	13.88	30.0
	16.19	25.7
	<b>18.50</b>	<b>22.5</b>

**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 20484.3 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