



# 26 GA. 5VCRIMP ROOF PANEL OVER 15/32" PLYWOOD\* FLORIDA PRODUCT APPROVAL NO. 11651.13 R2

### **Product Evaluation Report GULF COAST SUPPLY & MANUFACTURING, LLC.**

### 26 Ga. 5V Crimp Roof Panel over 15/32" Plywood

### Florida Product Approval #11651.13 R2

Florida Building Code 2014 Per Rule 61G20-3 Method: 1 –D

### **Category: Roofing**

**Subcategory: Metal Roofing** Compliance Method: 61G20-3.005(1)(d)

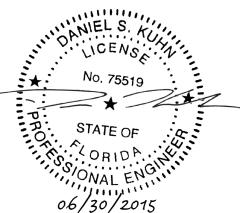
NON HVHZ

#### **Product Manufacturer:** Gulf Coast Supply & Manufacturing, LLC.

14429 SW 2nd Place, Suite G30 Newberry, FL 32669

#### **Engineer Evaluator:** Dan Kuhn, P.E. #75519 Florida Evaluation ANE ID: 10743

## Validator: Locke Bowden, P.E. #49704 9450 Alysbury Place



Montgomery, AL 36117

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**PRODUCT EVALUATION REPORT** 



KUHN ENGINEERING, LLC 11670 ISLAND LAKES LANE, BOCA RATON, FL 33498 • FL COA #30464





## **5VCRIMP** 26 GA. 5VCRIMP ROOF PANEL OVER 15/32" PLYWOOD\*

FLORIDA PRODUCT APPROVAL NO. 11651.13 R2

Compliance Statement:	The product as described in this report has demonstrated compliance with the Florida Building Code 2014, Sections 1504.3.2.					
Product Description:	5V Crimp Roof Panel, 26 Ga. Steel, 24" Coverage, through fastened roof panel with fasteners in the panel flat over minimum 15⁄32" plywood decking. Non Structural application.					
Panel Material/Standards:	Material: Minimum 26 Ga. Steel, ASTM A792 or ASTM A653 G90 conforming to Florida Building Code 2014 Section 1507.4.3. Paint Finish Optional Yield Strength: 80.0 ksi Corrosion Resistance: Panel Material shall comply with Florida Building Code 2014, Section 1507.4.3.					
Panel Dimension(s):	Thickness:0.018" MinimumWidth:24" CoverageRib Height:¾" Major Rib					
Panel Fastener:	#9-15x1.5" with sealing washing in the flat of the panel or approved equal, ¼" minimum penetration through plywood. Corrosion Resistance: Per Florida Building Code 2014, Section 1506.6, 1507.4.4					
Substrate Description:	Minimum <sup>15</sup> / <sub>32</sub> " thick, APA Rated plywood over supports at maximum 24" O.C. Design of plywood and plywood supports are outside the scope of this evaluation. Must be designed in accordance w/ Florida Building Code 2014.					
Design Uplift Pressures:	Table "A"					
	Maximum Total Uplift Design Pressure	94.25 psf	131.0 psf			
	Fastener Pattern	12"-12"	9.5″-2″-9.5″			
	Fastener Pattern Spacing	16″ O.C.	16″ O.C.			
	Design Pressure includes a Safety Factor = 2.0.					

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# **5VCRIMP**

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Code Compliance:	The product described herein has demonstrated compliance with the Florida Building Code 2014, Sections 1504.3.2.				
Evaluation Report Scope:	The product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code 2014, as relates to Rule 61G20-3.				
Performance Standards:	<ul> <li>The product described herein has demonstrated compliance with:</li> <li>UL 580-06 - Test for Uplift Resistance of Roof Assemblies</li> <li>UL 1897-04 - Uplift Test for Roof Covering Systems.</li> </ul>				
Reference Data:	<ol> <li>UL 580-94 / 1897-98 Uplift Test Force Engineering &amp; Testing, Inc. (FBC Organization # TST-5328) Report No. 117-0053T-05 &amp; 117-0331T-08</li> <li>Certificate of Independence By Dan Kuhn, P.E. (FL# 75519) @ Kuhn Engineering, LLC (FBC Organization # ANE ID: 10743)</li> </ol>				
Test Standard Equivalence:	<ol> <li>The UL 580-94 test standard is equivalent to the UL 580-06 test standard.</li> <li>The UL 1897-98 test standard is equivalent to the UL 1897-04 test standard.</li> </ol>				
Quality Assurance Entity:	The manufacturer has established compliance of roof panel products in accordance with the Florida Building Code and Rule 61G20-3.005(3) for manufacturing under a quality assurance program audited by an approved qualit assurance entity.				
Minimum Slope Range:	Minimum Slope shall comply with Florida Building Code 2014, including Section 1507.4.2 and in accordance with Manufacturers recommendations. For slopes less than 3:12, lap sealant must be used in the panel side laps.				
Installation:	Install per Manufacturer's recommended details.				
Underlayment:	Shall comply with Florida Building Code 2014 section 1507.4.5.1 and 1507.4.5.2.				
Roof Panel Fire Classification:	Fire classification is not part of this acceptance.				
Shear Diaphragm:	Shear Diaphragm values are outside the scope of this report.				

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**Design Procedure:** 

For roofs within the parameters listed on the load table, fastening pattern must at a minimum meet those listed for the applicable wind zone. For all roofs outside the parameters listed on the load table, 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. This evaluation report is not applicable in High Velocity Hurricane Zone. Refer to current NOA or HVHZ evaluation report for use of this product in High Velocity Hurricane Zone.

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#### ENGINEER'S LOAD TABLE SPEC





# **5VCRIMP**

26 GA. 5VCRIMP ROOF PANEL OVER 15/32" PLYWOOD\*

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#### ENGINEER LOAD TABLE: 26 Ga. 5VCrimp Roof Panel over 15/32" Plywood

Buildings having a Roof Mean Height  $\leq$  20'-0"; Roof Slope: 2"/12" - 12"/12" Gable or Hip Roof; Wind Speeds 120-180mph, Exposure C, Risk Category II, Enclosed Building, based on Florida Building Code 2014.

		3 7 .		<b>.</b>		3			
WIIND FASTENER (MIN. 1/4" Penetration)	FASTENER	(MIN. 1/4" (MIN. 15/32")	120	130	140	150	160	170	180
	-		ON CENTER SPACING						
ZONE 1	#9-15x1.5″	Plywood	16" TYPE 1	16″ TYPE 1	16" TYPE 1	16" TYPE 1	16″ TYPE 1	16″ TYPE 1	16″ TYPE 1
ZONE 2	#9-15x1.5″	Plywood	16″ TYPE 1	16″ TYPE 1	16″ TYPE 1	16" TYPE 1	16″ TYPE 1	16″ TYPE 1	16″ TYPE 1
ZONE 3	#9-15x1.5"	Plywood	16″ TYPE 1	16″ TYPE 2	16″ TYPE 2				

1.) PANEL DESCRIPTION: 5V CRIMP, MIN. 26 GA., GRADE 80, 24" COVERAGE.

2.) PANEL FASTENER: #9-15X1.5" HWH WITH SEALING WASHER W/ MIN. 1/4" PENETRATION.

**3.) MAXIMUM ALLOWABLE PANEL UPLIFT PRESSURE:** -94.25 PSF@ 16" O.C. FASTENER SPACING TYPE 1 FASTENER PATTERN, -131.0 PSF @16" O.C. FASTENER SPACING TYPE 2 FASTENER PATTERN BASED ON TAS 125, UL 580/UL 1897 TESTING.

**4.) PLYWOOD DECKING:** MIN. <sup>15</sup>/<sub>32</sub>" THICK PLYWOOD MUST BE DESIGNED IN ACCORDANCE WITH FLORIDA BUILDING CODE 2014. **5.) ROOF SLOPE:** ON ROOF SLOPES LESS THAN 3:12, LAP SEALANT MUST BE USED IN PANEL SIDE LAPS.

**6.) LOAD TABLE** BASED ON WIND PRESSURES CALCULATED PER ASCE 7-10 (KD = 0.85) MULTIPLIED BY 0.6 PER FLORIDA BUILDING CODE 2014

