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**26 GA. GULF**LOK<sup>TM</sup> **16" WIDE ROOF PANEL OVER 15/32" PLYWOOD** FLORIDA PRODUCT APPROVAL **NO. 11651.15 R2** 

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

#### 26 Ga. GulfLok™ 16" Wide Roof Panel over 15/32" Plywood

#### Florida Product Approval #11651.15 R2

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

#### Category: Roofing

Subcategory: Metal Roofing

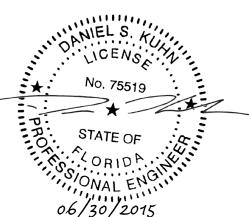
Compliance Method: 61G20-3.005(1)(d) HVHZ

#### 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 #30





# **GULFLOK**<sup>™</sup>

26 GA. GULFLOK™ 16" WIDE ROOF PANEL OVER 15/32" PLYWOOD FLORIDA PRODUCT APPROVAL NO. 11651.15 R2

| Compliance Statement:     | The product as described in this report has demonstrated compliance with the Florida Building Code 2014, Sections 1504.3.2, 1518.9, 1523.6.5.2.4.  |                    |            |             |            |  |
|---------------------------|--|--------------------|------------|-------------|------------|--|
| Product Description:      | GulfLok™, ⅔" Nailstrip Roof Panel, 26 Ga. Steel, Maximum 16" Coverage, Roof panel restrained with fasteners into minimum <sup>1</sup> 5⁄32" plywood decking. Non Structural application.   |                    |            |             |            |  |
| Panel Material/Standards: | Material: Minimum 26 Ga. Steel, ASTM A792 or ASTM A653 G90 conforming to<br>Florida Building Code 2014 Section 1507.4.3.<br>Paint Finish Optional<br>Yield Strength: 80.0 ksi<br>Corrosion Resistance: Panel Material shall comply with Florida Building Code<br>2014, Section 1507.4.3. |                    |            |             |            |  |
| Panel Dimension(s):       | Thickness:0.018" MinimumWidth:16" Coverage MaximumFemale Rib: $7_{6}$ " TallMale Rib: $3_{4}$ " Tall Rib with Slotted StripPanel Seam:Snap Lock  |                    |            |             |            |  |
| Panel Clip:               | 24 Ga. Zinc Aluminum Coated Steel, 24" Long. Used at Corner Zones only, where required design pressures exceed -121.75 psf.  |                    |            |             |            |  |
| Panel Fastener:           | #10-12x1" Pancake Type A<br>¼" Minimum Penetration through Plywood.<br>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.<br>Design of plywood and plywood supports are outside the scope of this evaluation.<br>Must be designed in accordance w/ Florida Building Code 2014.                                  |                    |            |             |            |  |
| Design Uplift Pressures:  | Table "A" Max  | timum Design Press | ures       |             |            |  |
|                           | Roof Areas   |                    | Assembly A | Assembly B  | Assembly C |  |
|                           | Maximum Design   | Pressures          | -63.5 psf  | -121.75 psf | -161 psf   |  |
|                           | Fastener Spacing   |                    | 51⁄8″ O.C  | 51⁄8″ O.C   | 51⁄8″ O.C  |  |
|                           | Sealant  |                    | No         | Yes         | No         |  |
|                           | Panel Clip   |                    | No         | No          | Yes        |  |
|                           | *Design Pressure includes a Safety Factor = 2.0.   |                    |            |             |            |  |

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## **GULFLOK**<sup>TM</sup> 26 GA. GULFLOK<sup>TM</sup> 16" WIDE ROOF PANEL OVER 15/32" PLYWOOD

FLORIDA PRODUCT APPROVAL **NO. 11651.15 R2** 

| Code Compliance:           | The product described herein has demonstrated compliance with the Florida Building Code 2014, Sections 1504.3.2, 1518.9, 1523.6.5.2.4.  |  |  |  |  |
|----------------------------|---|--|--|--|--|
| 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>TAS 125-03: UL 580-94 / 1897-98 Uplift Test<br/>Force Engineering &amp; Testing, Inc. (FBC Organization # TST-5328)<br/>Report No. 117-0301T-10A-C, Dated 10/11/2010</li> <li>TAS 125<br/>Architectural Testing, Inc. (FBC Organization # TST-1527)<br/>Report No. B9000.01-450-18, Dated 12/12/2012</li> <li>TAS 100-95<br/>Farabaugh Engineering &amp; Testing, Inc. (FBC Organization # TST-1654)<br/>Report No. T356-10, Dated 10/29/2010</li> <li>TAS 110-00: Valspar Fluropon coated metal panel testing<br/>A) ASTM G 26 by PRI Asphalt Technologies dated 01/19/2004<br/>B) ASTM B 117 by PRI Asphalt Technologies dated 01/19/2004</li> <li>Certificate of Independence<br/>By Dan Kuhn, P.E. (FL# 75519) @ Kuhn Engineering, LLC<br/>(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> <li>ASTM G 26 is equivalent to ASTM G 155.</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 quality assurance entity.  |  |  |  |  |

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**PRODUCT EVALUATION REPORT** 





## **GULFLOK<sup>TM</sup>** 26 GA. GULFLOK<sup>TM</sup> 16" WIDE ROOF PANEL OVER 15/32" PLYWOOD

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| Minimum Slope Range: | Minimum Slope shall comply with Florida Building Code 2014, including Section 1515.2 and in accordance with Manufacturers recommendations.  |
|----------------------|---|
| Installation:        | Install per Manufacturer's recommended details and RAS 133.   |
| Underlayment:        | Shall comply with Florida Building Code 2014 section 1518.2, 1518.3, 1518.4. Self Adhered roofing underlayment must be used in the valley up 18" on each side of valley.  |
| Fire Barrier:        | Any approved fire barrier having a current NOA. Refer to a current fire directory listing for fire ratings of this roofing system assembly as well as the location of the fire barrier within the assembly. Fire classification is not part of this acceptance.   |
| Shear Diaphragm:     | Shear Diaphragm values are outside the scope of this report.  |
| Design Procedure:    | For roofs within the parameters listed on the load table, fastening pattern must<br>at a minimum meet those listed for the applicable wind zone. For all roofs outside<br>the parameters listed on the load table, design wind loads shall be determined<br>for each project in accordance with FBC 2014 Section 1609 or ASCE 7-10<br>using allowable stress design. The maximum fastener spacing listed herein shall<br>not be exceeded. |

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**PRODUCT EVALUATION REPORT** 



#### ENGINEER'S LOAD TABLE SPEC



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**26 GA. GULF**LOK™ **16" WIDE ROOF PANEL OVER 15/32" PLYWOOD** FLORIDA PRODUCT APPROVAL **NO. 11651.15 R2** 

#### ENGINEER LOAD TABLE: 26 Ga. GulfLok™ 16" Wide 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.

| WIIND<br>SPEED FASTENER<br>(MIN. 1/4"<br>Penetration) | FASTENER                   |                      | 120                  | 130                  | 140                  | 150                  | 160                  | 170                  | 180        |
|---|----------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|------------|
|   | SUBSTRATE<br>(MIN. 15/32") | ON CENTER<br>SPACING |            |
| ZONE 1  | (1) #10-12x1"              | CDX<br>PLYWOOD       | ASSEMBLY A           | ASSEMBLY A |
| ZONE 2  | (1) #10-12x1"              | CDX<br>PLYWOOD       | ASSEMBLY A           | ASSEMBLY B           | ASSEMBLY B |
| ZONE 3  | (1) #10-12x1"              | CDX<br>PLYWOOD       | ASSEMBLY A           | ASSEMBLY A           | ASSEMBLY B           | ASSEMBLY B           | ASSEMBLY B           | ASSEMBLY B           | ASSEMBLY B |

1.) PANEL DESCRIPTION: GULFLOK™, MIN. 26 GA, 7/8" RIB, 16" MAXIMUM COVERAGE, SNAP SEAM.

2.) PANEL FASTENER: THROUGH PANEL SLOT: (1) #10-12X1" PANCAKE TYPE A, ¼" MIN. PENETRATION THROUGH PLYWOOD.
3.) MAXIMUM ALLOWABLE PANEL UPLIFT PRESSURE: -63.5 PSF AT 5%" O.C. ASSEMBLY A, -121.75 PSF AT 5%" O.C. WITH SEALANT ASSEMBLY B, -161 PSF AT 5%" O.C. WITH CLIP ASSEMBLY C. PRESSURE BASED ON UL 580/UL 1897 TESTING BY FORCE ENGINEERING & TESTING.

**4.) PLYWOOD DECKING:** MIN. <sup>15</sup>/<sub>32</sub>" THICK, APA RATED PLYWOOD, GRADE C-D. MUST BE DESIGNED IN ACCORDANCE W/ FBC 2014 **5.) LOAD TABLE** BASED ON WIND PRESSURES CALCULATED PER ASCE 7-10 (KD = 0.85) MULTIPLIED BY 0.6 PER FLORIDA BUILDING CODE 2014

