



GULFSEAM™

24GA. GULFSEAM™ 16" WIDE ROOF PANEL OVER 1X4'S OVER 15/32" PLYWOOD
FLORIDA PRODUCT APPROVAL **NO. 11651.10 R2**

Product Evaluation Report
GULF COAST SUPPLY & MANUFACTURING, LLC.

24 Ga. GulfSeam™ 16" Wide Roof Panel over 1x4 Wood Purlins over 15/32" Plywood

Florida Product Approval #11651.10 R2

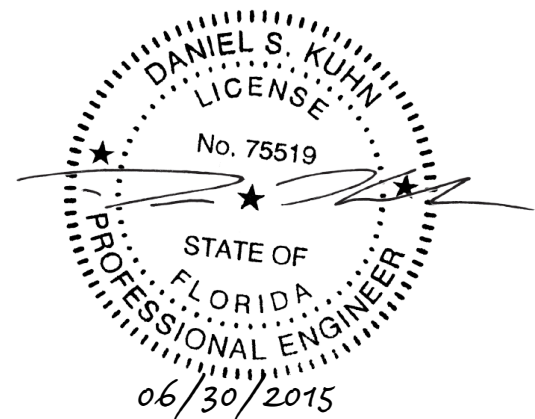
Florida Building Code 2014
Per Rule 61G20-3
Method: 1 –D

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

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Locke Bowden, P.E. #49704
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|----------------------------------|---|
| Compliance Statement: | The product as described in this report has demonstrated compliance with the Florida Building Code 2014, Sections 1504.3.2, 1504.7. |
| Product Description: | GulfSeam™ Roof Panel, 1¾" Snap Lock, Minimum 24 Ga. Steel, Maximum 16" Wide, Roof Panel restrained with steel fixed clips into Minimum 1x4 wood purlins over minimum 15/32" Plywood decking. Non-Structural Application. |
| Panel Material/Standards: | Material: Minimum 24 Ga. Steel, ASTM A792 or ASTM A653 G90 conforming to Florida Building Code 2014 Section 1507.4.3. Paint Finish Optional. Yield Strength: Minimum 94.4 ksi Corrosion Resistance: Panel Material shall comply with Florida Building Code 2014, Section 1507.4.3. |
| Panel Dimension(s): | Thickness: 0.0235" Minimum Width: 16" Coverage Maximum Rib Height: 1¾" Panel Seam: Snap Lock |
| Roof Panel Clip: | Type: Fixed, 18Ga., 3½" Long Corrosion Resistance: Per Florida Building Code 2014 Section 1506.7 |
| Clip Fastener: | (2) #10-12x2" Pancake Type A ¼" Minimum penetration through Plywood Corrosion Resistance: Per Florida Building Code 2014, Section 1506.6, 1507.4.4 |
| Substrate Description: | Minimum 1x4 No. 2 SYP wood purlins over min. 15/32" thick, APA Rated plywood over supports at maximum 24" O.C. The 1x4 wood purlins shall be fastened to the plywood with minimum 8D x 2½" Ring Shank Nails at 4" O.C. Design of 1x4 wood purlins, plywood and plywood supports are outside the scope of this evaluation. Must be designed in accordance w/ Florida Building Code 2014. |



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Design Uplift Pressures:

| Table "A" | |
|--|----------|
| Maximum Total Uplift Design Pressure | 93.5 psf |
| Clip Spacing | 18" O.C. |
| # Fasteners per Clip | 2 |
| *Design Pressure includes a Safety Factor = 2.0. | |

Code Compliance:

The product described herein has demonstrated compliance with the Florida Building Code 2014, Sections 1504.3.2, 1504.7.

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:

The product described herein has demonstrated compliance with:

- UL 580-06 - Test for Uplift Resistance of Roof Assemblies
- UL 1897-04 - Uplift Test for Roof Covering Systems
- FM 4471-1992, Section 4.4 - Foot Traffic Resistance Test.

Reference Data:

1. UL 580-94 / 1897-98 Uplift Test
Force Engineering & Testing, Inc. (FBC Organization # TST-5328)
Report No. 117-0285T-09
2. FM 4471-10, Section 4.4 Foot Traffic Resistance Test
Force Engineering & Testing, Inc. (FBC Organization # TST-5328)
Report No. 117-0378T-11C, Dated 02/15/2012
3. Certificate of Independence
By Dan Kuhn, P.E. (FL# 75519) @ Kuhn Engineering, LLC
(FBC Organization # ANE ID: 10743)

Test Standard Equivalence:

1. The UL 580-94 test standard is equivalent to the UL 580-06 test standard.
2. The UL 1897-98 test standard is equivalent to the UL 1897-04 test standard.
3. The FM 4471-95 test standard is equivalent to the FM 4471-1992 test standard.

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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| Minimum Slope Range: | Minimum Slope shall comply with Florida Building Code 2014, including Section 1507.4.2 and in accordance with Manufacturers recommendations. |
| 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. |
| 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 clip/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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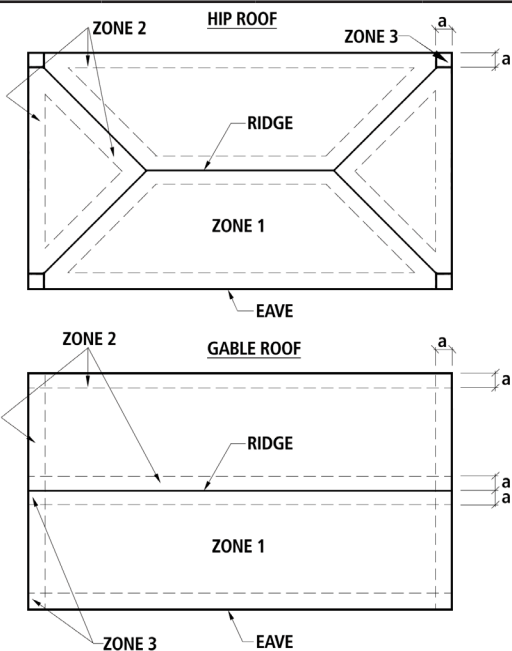
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ENGINEER LOAD TABLE: 24 Ga. GulfSeam™ 16" Wide Roof Panel over 1X4 Wood Purlins over 15/32" Plywood

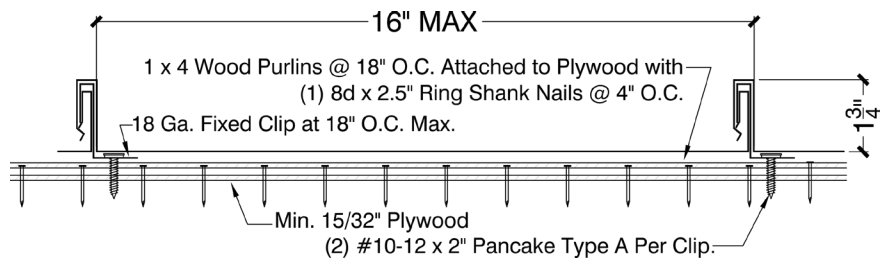
Buildings having a Roof Mean Height ≤ 20'-0"; Roof Slope: 2"/12" - 12"/12" Gable or Hip Roof; Wind Speeds 120-180mph, Exposure C, Risk Category II, Enclosed Building, based on Florida Building Code 2014.

| WIND SPEED | FASTENER (MIN. 1/4" Penetration) | SUBSTRATE | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
|------------|----------------------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | | | ON CENTER SPACING | ON CENTER SPACING | ON CENTER SPACING | ON CENTER SPACING | ON CENTER SPACING | ON CENTER SPACING | ON CENTER SPACING |
| ZONE 1 | (2) #10-12x2" | 1x4 Wood Purlins | 18" | 18" | 18" | 18" | 18" | 18" | 18" |
| ZONE 2 | (2) #10-12x2" | 1x4 Wood Purlins | 18" | 18" | 18" | 18" | 18" | 18" | 18" |
| ZONE 3 | (2) #10-12x2" | 1x4 Wood Purlins | 18" | 18" | 18" | 18" | 18" | N/A | N/A |

- 1.) PANEL DESCRIPTION:** GULFSEAM™, MIN. 24 GA. STEEL, 16" MAX WIDTH, 1 3/4" TALL RIB SNAP LOCK
- 2.) CLIP FASTENER:** (2) #10-12X2" PANCAKE TYPE A PER CLIP.
- 3.) PANEL CLIP:** 18 GA. 3 1/2" LONG FIXED CLIP
- 4.) MAXIMUM ALLOWABLE PANEL UPLIFT PRESSURE:** 93.5 PSF @ 18" O.C. PRESSURE BASED ON UL 580/UL 1897 TESTING BY FORCE ENGINEERING.
- 5.) SUBSTRATE:** 1X4 WOOD PURLINS OVER MIN. 1 1/2" THICK PLYWOOD. WOOD PURLINS ATTACHED TO PLYWOOD W/ MIN. 8D X 2 1/2" RING SHANK NAILS AT 4" O.C. PURLINS AND PLYWOOD MUST BE DESIGNED IN ACCORDANCE WITH FBC 2014
- 6.) LOAD TABLE** BASED ON WIND PRESSURES CALCULATED PER ASCE 7-10 (KD = 0.85) MULTIPLIED BY 0.6 PER FLORIDA BUILDING CODE 2014



Note: Dimension (a) is defined as 10% of the minimum width of the building or 40% of the mean height of the roof, whichever is smaller, however, (a) cannot be less than either 4% of the minimum width of the building or 3 feet.



FL# 11651.10 R2 • JUNE 15, 2015

PRODUCT EVALUATION REPORT

