



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

29 Ga. GulfRib™ Roof Panel over 1x4 Wood Purlins

# Florida Product Approval #11651.27 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

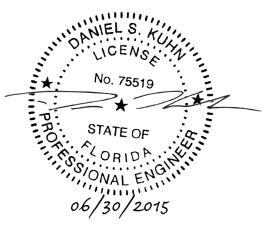
9450 Alysbury Place Montgomery, AL 36117

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**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:** GulfRib™, ¾" Rib Roof Panel, Minimum 29 Ga. Steel, 36" Coverage, through

fastened roof panel over Minimum 1x4 Wood Purlins over one layer of Asphalt Shingles (optional) over minimum 7/6" OSB or minimum 15/32" Plywood Decking.

Non Structural application.

Panel Material/Standards: Material: Minimum 29 Ga. Steel, ASTM A792 or ASTM A653 G90 conforming to

Florida Building Code 2014 Section 1507.4.3.

Paint Finish Optional

Yield Strength: Min. 102.0ksi

Corrosion Resistance: Panel Material shall comply with Florida Building Code

2014, Section 1507.4.3.

**Panel Dimension(s):** Thickness: 0.0142" Minimum

Width: 36" Coverage

Rib Height: 3/4" Major Rib at 9" O.C.

**Panel Fastener:** #9-15x1.5" HWH with sealing washing or approved equal

1/4" 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 maximum one layer of asphalt

shingles (optional) over min. 7/16" OSB or min. 15/32" thick over supports at

maximum 24" O.C. The 1x4 wood purlins shall be fastened to the wood rafters

(24" O.C. Max) with (2) 9 x  $2\frac{1}{2}$ " Deck Screws per rafter (Minimum  $1\frac{7}{8}$ " penetration into wood rafter). Design of 1x4 wood purlins, OSB, plywood and OSB/plywood supports are outside the scope of this evaluation. Must be designed

in accordance w/ Florida Building Code 2014.

Design Uplift Pressures: Table

Table "A"						
Maximum Total Uplift Design Pressure	101.0 psf					
Fastener Pattern	9"-9"-9"-9"					
Fastener Pattern Spacing	24" O.C.					
Design Pressure includes a Safety Factor = 2.0.						

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# **GULFRIB**<sup>™</sup>

29 GUAGE GULFRIB™ PANEL OVER 1X4 WOOD PURLINS FLORIDA PRODUCT APPROVAL NO. 11651.27 R2

**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. 117-0407T-09, Dated 11/16/09

2. FM 4471-95, Section 4.4 Foot Traffic Resistance Test

Force Engineering & Testing, Inc. (FBC Organization # TST-5328)

Report No. 117-0238T-09E, Dated 07/21/2009

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.

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.

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**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 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**





# **GULFRIB**™

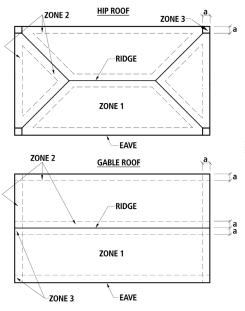
29 GUAGE GULFRIB™ PANEL OVER 1X4 WOOD PURLINS FLORIDA PRODUCT APPROVAL NO. 11651.27 R2

#### ENGINEER LOAD TABLE: 29 Ga. GulfRib™ Panel over 1x4 Wood Purlins

Buildings having a Roof Mean Height ≤ 20'-0"; Roof Slope: 2"/12" - 12"/12" Gable or Hip Roof; Wind Speeds 120-170mph, Exposure C, Risk Category II, Enclosed Building, based on Florida Building Code 2014.

WIIND SPEED	FASTENER (MIN. 1/4" Penetration)	SUBSTRATE	120	130	140	150	160	170
			ON CENTER SPACING					
ZONE 1	#9-15x1.5"	1x4 Wood Purlins	24"	24"	24"	24"	24"	24"
ZONE 2	#9-15x1.5"	1x4 Wood Purlins	24"	24"	24"	24"	24"	24"
ZONE 3	#9-15x1.5"	1x4 Wood Purlins	24"	24"	24"	24"	24"	24"

- 1.) PANEL DESCRIPTION: GULFRIB™, MIN. 29 GA., GRADE 102, 36"COVERAGE, 3/4" TALL.
- 2.) PANEL FASTENER: #9-15X1.5" HWH WITH SEALING WASHER OR APPROVED EQUAL
- **3.) MAXIMUM ALLOWABLE PANEL UPLIFT PRESSURE:** 101.0 PSF @ 24" O.C. FASTENER SPACING BASED ON TAS 125, UL 580/UL 1897 TESTING.
- **4.) SUBSTRATE:** 1X4 WOOD PURLINS OVER MAX. ONE LAYER OF ASPHALT SHINGLES (OPTIONAL) OVER MIN. 7/6" OSB OR MIN. 15/32" THICK PLYWOOD. WOOD PURLINS ATTACHED TO WOOD RAFTER (24" O.C. MAX) WITH (2) 9 X 21/2" DECK SCREWS WITH MIN. 17/6" PENETRATION INTO WOOD RAFTERS. PURLINS, OSB AND PLYWOOD MUST BE DESIGNED IN ACCORDANCE WITH FBC 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



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.

#### **FASTENER PATTERN**

1 x 4 Wood Purlins @ 24" O.C. Attached to Wood Rafters w/(2) 9 x 2.5" Deck Screws @ Max. 24" O.C.

9"
9"
4t Panel Lap
9"
(1) #9-15 x 1-1/2" w/Sealer Washer Min. 7/16" OSB
9"-9"-9"-9" Fastener Pattern @ 24" O.C.
Max. (1) Layer of Asphalt Shingles (Optional)

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