



# MEGALOC™

2" 24GA. MEGALOC™ 18" WIDE ROOF PANEL OVER 15/32" PLYWOOD  
FLORIDA PRODUCT APPROVAL NO. 11651.8 R2

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

**2" 24 Ga. MegaLoc™ 18" Wide Roof Panel over 15/32" Plywood**

**Florida Product Approval #11651.8 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:**

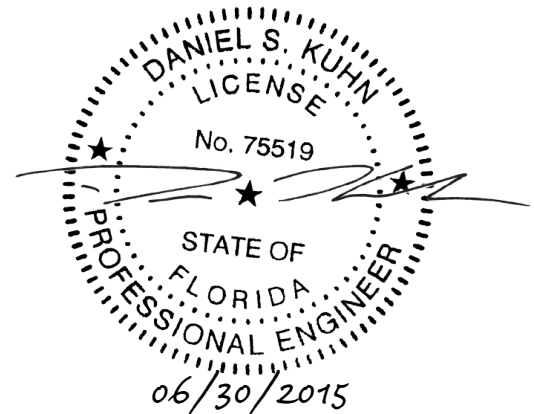
**Dan Kuhn, P.E. #75519**

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.
- Product Description:** MegaLoc™, 2" Mechanical Lock Standing Seam Roof Panel, Minimum 24 Ga. Steel, Maximum 18" Coverage, Roof Panel restrained with steel slider clips into 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 50.0 ksi  
Corrosion Resistance: Panel Material shall comply with Florida Building Code 2014, Section 1507.4.3.
- Panel Dimension(s):** Thickness: 0.0235" Minimum  
Width: 18" Coverage Maximum  
Rib Height: 2"  
Panel Seam: 180° Seam, Double Lock w/ Mechanical Seamer
- Roof Panel Clips:** Product Name: NC-33003 Sliding Clip Assembly  
Corrosion Resistance: Per Florida Building Code 2014 Section 1506.7
- Clip Fastener:** (2) #10-12x1" Pancake Type A  
1/4" Minimum penetration through Plywood  
Corrosion Resistance: Per Florida Building Code 2014, Section 1506.6, 1507.4.4
- Substrate Description:** Minimum 15/32" 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	71.0 psf	108.5 psf
Clip Spacing	24" O.C.	12" O.C.
# Fasteners per Clip	2	2
*Design Pressure includes a Safety Factor = 2.0.		





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<b>Code Compliance:</b>	The product described herein has demonstrated compliance with the Florida Building Code 2014, Sections 1504.3.2.
<b>Evaluation Report Scope:</b>	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.
<b>Performance Standards:</b>	The product described herein has demonstrated compliance with: <ul style="list-style-type: none"><li>• UL 580-06 - Test for Uplift Resistance of Roof Assemblies</li><li>• UL 1897-04 - Uplift Test for Roof Covering Systems</li></ul>
<b>Reference Data:</b>	<ol style="list-style-type: none"><li>1. UL 580-94 / 1897-98 Uplift Test Force Engineering &amp; Testing, Inc. (FBC Organization # TST-5328) Report No. 117-0248T-07 Dated 06/2007</li><li>2. Certificate of Independence By Dan Kuhn, P.E. (FL# 75519) @ Kuhn Engineering, LLC (FBC Organization # ANE ID: 10743)</li></ol>
<b>Test Standard Equivalence:</b>	<ol style="list-style-type: none"><li>1. The UL 580-94 test standard is equivalent to the UL 580-06 test standard.</li><li>2. The UL 1897-98 test standard is equivalent to the UL 1897-04 test standard.</li></ol>
<b>Quality Assurance Entity:</b>	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.
<b>Minimum Slope Range:</b>	Minimum Slope shall comply with Florida Building Code 2014, including Section 1507.4.2 and in accordance with Manufacturers recommendations.
<b>Installation:</b>	Install per Manufacturer's recommended details.
<b>Underlayment:</b>	Shall comply with Florida Building Code 2014, Section 1507.4.5.1 and 1507.4.5.2
<b>Roof Panel Fire Classification:</b>	Fire classification is not part of this evaluation.
<b>Shear Diaphragm:</b>	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 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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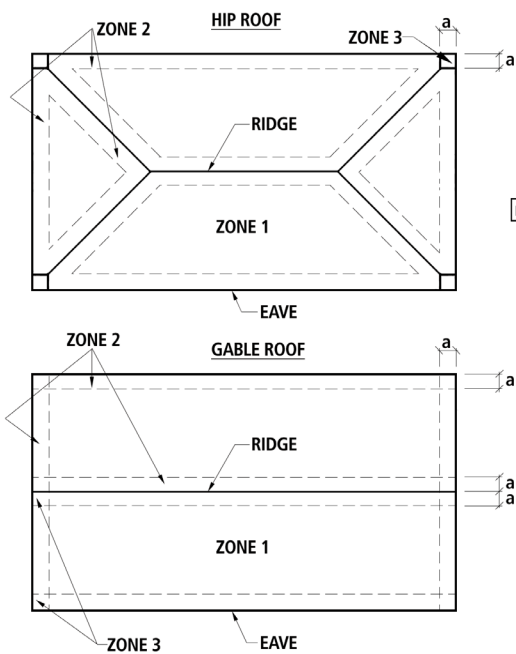
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## ENGINEER LOAD TABLE: 2" 24 Ga. MegaLoc™ 18" Wide Roof Panel over 15/32" Plywood

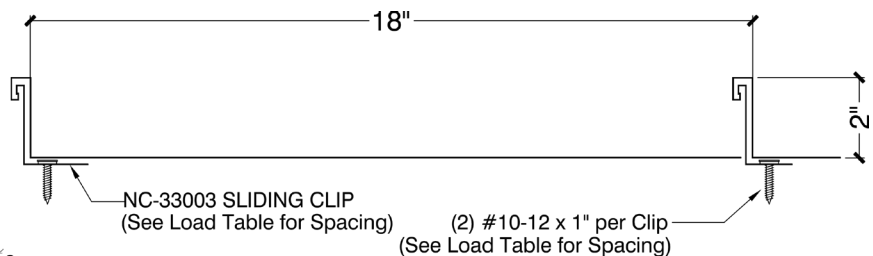
Buildings having a Roof Mean Height  $\leq 20'-0"$ ; Roof Slope: 2"/12" - 12"/12" Gable or Hip Roof; Wind Speeds 120-180mph, Exposure C, Risk Category II, Enclosed Building, based on Florida Building Code 2014.

WIND SPEED	FASTENER (MIN. 1/4" Penetration)	SUBSTRATE (MIN. 15/32")	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) #10-12x1"	PLYWOOD	24"	24"	24"	24"	24"	24"	24"
ZONE 2	(2) #10-12x1"	PLYWOOD	24"	24"	24"	24"	24"	24"	12"
ZONE 3	(2) #10-12x1"	PLYWOOD	24"	24"	24"	12"	12"	12"	12"

- PANEL DESCRIPTION:** MEGALOC™, MIN. 24 GA. STEEL, 18" MAX WIDTH, 2" MECHANICAL DOUBLE LOCK SEAM
- CLIP FASTENER:** (2) #10-12X1" PANCAKE TYPE A PER CLIP.
- PANEL CLIP:** NC-33003 SLIDING CLIP ASSEMBLY
- MAXIMUM ALLOWABLE PANEL UPLIFT PRESSURE:** -71.0 PSF @ 24" O.C., 108.5 PSF @ 12" O.C. PRESSURE BASED ON UL 580/UL 1897 TESTING BY FORCE ENGINEERING.
- PLYWOOD DECKING:** MIN. 15/32" THICK, APA RATED PLYWOOD, GRADE C-D. MUST BE DESIGNED IN ACCORDANCE FBC 2014
- 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# 11651.8 R2 • JUNE 15, 2015

## PRODUCT EVALUATION REPORT

