

Locke Bowden, P.E.
9450 Alysbury Place
Montgomery, AL 36117

Metal Roof Factory
599 Gus Hipp Blvd.
Rockledge, FL 32955

FL 11847

Quality Assurance Program: Keystone Certifications Category: Roofing Sub-Category: Metal Roofing
Code: FBC 2014 5th ed.; Method 1-D Sections: 1504.3.2, 1506.6, 1507.4, 1518.9, 1523.6.5.2.4

Description	Substrate	Design Uplift Pressure*	Fasteners	
.1 5 V Crimp 26GA 24" coverage 50 ksi Non Structural HVHZ	15/32" APA plywood for Non HVHZ. For Reroofing HVHZ additional 15/32" APA plywood over existing. For HVHZ use 19/32" APA plywood for new construction. All installs Over supports fastening max spacing 24" o.c. Designed in compliance with FBC 2014	<p>-108.5 psf* fastening panel rib @12" o.c.</p> <p>-156.5 psf* fastening panel rib @ 6" o.c.</p>	3/8" tall rib Thru fastened	Corrosion resistant; #9-15 WoodZac w/Zac Head with sealing washer or approved equal 1/4" min. penetration through plywood Min. slope 2:12; Lap sealant must be used for slopes less than 3:12. Fire classification not part of this acceptance. Use RAS 133 for HVHZ.
.2 1.5 Mechanical Lock Standing Seam 24GA 16" width 50 ksi HVHZ	Fasten with steel slider clips into 15/32" APA plywood decking for Non HVHZ. For Reroofing HVHZ additional 15/32" APA plywood over existing. For HVHZ use 19/32" APA plywood for new construction. All installs over supports spaced max. 24" o.c.	<p>-59.75 psf * Clip spacing 24" o.c. 2 fasteners per clip</p> <p>-123.5 psf * Clip spacing 6" o.c. 2 clips per fastener</p>	1-1/2" rib 180° seam double lock w/mechanical seamer	Corrosion resistant; (2) #12-11 Pancake type A Corrosion resistant; 1500SC, 1-1/2 sliding clip assembly, two piece slider Top-22GA galvanized steel Base-16GA galvanized steel 1/4" min. penetration through plywood Min. slope 2:12; Lap sealant must be used for slopes less than 3:12 Fire classification not part of this acceptance. Use RAS 133 for HVHZ.
.3 1.0 Nailstrip 24GA 16" width 50 ksi Non Structural Non-HVHZ	Thru fastened into min 15/32" APA plywood decking over supports with max spacing 24" o.c.	<p>-59.75psf *Panel slot fastening: 16" o.c.</p> <p>-101.0psf *Panel slot fastening 6- 3/4" o.c.</p> <p>-153.5psf * Panel slot fastening: 6- 3/4" o.c. @12" o.c. Panel Pan fastening 6-3/4" @12" o.c.</p>	3/4" male rib- slotted nail strip snap lock	Corrosion resistant; through panel slot (1) #10-13 GP Pancake Type A In Panel slot (2) #10-11 eclipse head Type A in the Panel Pan #10-12 Type A PH @ 6-3/4" o.c. (see details) 1/4" min. penetration through plywood Min. slope 2:12; Lap sealant must be used for slopes less than 3:12 Approved fire barrier. Fire classification not part of this acceptance.
.4 Rib 26GA 36" coverage 80 ksi Non Structural Non-HVHZ	Thru fastened into 15/32" APA plywood decking over supports with max. spacing 24" o.c.	<p>-69.25psf* @24" o.c. Fasten 9"-9"-9"-9"</p> <p>-146 psf * @ 12" o.c. Fasten 6.5"-2.5"- 6.5"-2.5"-6.5"-2.5"- 6.5"</p>	3/4" rib height Thru fastened	Corrosion resistant; thru fastened #9-15 HWH WoodGrip with sealing washer 1/4" penetration through plywood substrate Min. slope 2:12; Lap sealant must be used for slopes less than 3:12 Approved fire barrier. Fire classification not part of this acceptance.

.5	1.5 Snap Lock 16" width 50 ksi Non Structural HVHZ	15/32" APA Plywood For Non HVHZ. For Reroofing HVHZ additional 15/32" APA plywood over existing. For HVHZ use 19/32" APA plywood for new construction. All applications over supports with max. Spacing of 24" o.c.	-86 psf @ 24" o.c.* -108 psf @ 12" o.c.* -116 psf @ 6" o.c.*	1.5 rib height standing seam snap lock with clips	Corrosion resistant: Fastener #12-11 (2) fasteners per clip Pancake Head Type A. Clips: 1500SNS, 1-1/2" sliding clip assembly. 1/4" min penetration through plywood substrate Install per manufacturer details; HVHZ use RAS 133 for compliance with FBC 2014
	1.5 Snap Lock .032 AL 23 ksi min 16" Coverage Non Structural Non HVHZ	15/32" APA plywood new and existing construction over supports attached with #8x2" woodscrews with max. spacing 24" o.c.	-45psf @ 16" o.c.* -52 psf @ 6" o.c.*	1.5"rib height Standing seam snap lock with clips	Corrosion resistant: (2) #12-11 Pancake Head fasteners per clip. Clip: 18Ga Stainless steel. 1/4 penetration through plywood substrate .Install per manufacturer details. Panel Perimeter: Use 0.5" bead Titebond- WeatherMaster sealant along seam

*Design Pressures includes safety factor=2.0

References

Entity	Report #	Standard	Year
Force Engineering & Testing (TST-5328)	#234-0063T-07 M-O	TAS 125-03 :UL 580-94 ¹ /1897-98 ²	(2006 ¹ /2004 ²)
Farabaugh Engineering and Testing (TST-1654)	#T130-07	TAS 100-95	
	# T215-08	TAS 100-95	
PRI Construction Materials Technologies (TST-5878)	#VLS-004-02-01	TAS 110-00 (ASTM G 155) (ASTM B 117)	
	#VLS-005-02-01	TAS 110-00 (ASTM G 155) (ASTM B 117)	
Force Engineering & Testing (TST-5328)	#72-0313T-06	TAS 125-03 :UL 580-94 ¹ /1897-98 ²	(2006 ¹ /2004 ²)
Farabaugh Engineering and Testing (TST-1654)	#T157-07	TAS 100-95	
PRI Construction Materials Technologies (TST-5878)	#VLS-004-02-01	TAS 110-00 (ASTM G 155) (ASTM B 117)	
	#VLS-005-02-01	TAS 110-00 (ASTM G 155) (ASTM B 117)	
Force Engineering & Testing (TST-5328)	#72-0314T	UL 580-94 ¹ /1897-98 ²	(2006 ¹ /2004 ²)
Farabaugh Engineering and Testing (TST-1654)	#T158-07	TAS 100-95	
PRI Construction Materials Technologies (TST-5878)	#VLS-004-02-01	TAS 110-00 (ASTM G 155) (ASTM B 117)	
	#VLS-005-02-01	TAS 110-00 (ASTM G 155) (ASTM B 117)	
PRI Construction Material Technologies (TST5878)	FMRP-002-02-01	UL 580-06	
	FMRP-002-02-01	UL 1897-04	
PRI Construction Material Technologies (TST5878)	FAE-009-02-01	UL 580-06	
		UL 1897-04	

1. *UL 580-94¹ test standard is equivalent to UL 580-06¹ test standard.*
2. *UL 1897-98² test standard is equivalent to UL 1897-04² test standard*

Limitations:

1. Underlayment to be compliance with current Florida Building Code.
2. Minimum slope to be in compliance with Florida Building Code 2014, and in accordance with Manufacturer's installation reference.
3. Products are compliant for State of Florida product approval per Rule 61G20-3
4. Fire classification is not part of this acceptance.
5. Shear diaphragm values are outside this report.
6. All support framing to be in compliance w/Florida Building Code 2014, Chapter 22 Steel, Chapter 23 Wood, Chapter 16 Structural Loading.
7. Engineer must evaluate the wall panel attachment to substrate for fastener pullout/pullover per AISI Specifications.
8. This report does not imply warranty, installation, recommended product use outside of this report.

Compliance Statement: These products herein evaluated by Locke Bowden, P.E. have demonstrated compliance with the Florida Building Code 2014 with referenced documents submitted.

Certificate of Independence: Locke Bowden, P.E. does not have, nor will acquire a financial interest in any company manufacturing or distributing products under this evaluation. Locke Bowden, P.E. is not owned, operated or controlled by any company manufacturing or distributing products under this report.


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