PAC-CLAD PETERSEN

Product Report

Manufacturer: Petersen Aluminum Corporation

102 Northpoint Parkway Building 106 Acworth, GA 30102 (800) 272-4482

Sub-Category: Metal Roofing

Florida Product Approval # 35396

Compliant with Florida Building Code 2023 (8th edition) Compliant with Florida Product Approval Rule # 61G20-3

Compliant Quality Assurance Program: UL LLC

FL # 35396.1 2.67" x 7/8" Corrugated Panels: 24GA Steel & 0.032" Aluminum

Non-HVHZ

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The 24GA Steel panels were fastened over 16GA supports using corrosion resistant $\frac{1}{4}$ 14 x 1-1/4" long hex head self-drill fasteners w/ 5/8" seal washer located at every other low cell of the panel as shown on install d etails. The fixed end was fastened at every low cell of the panel. The panel side-joints were single overlapping fastened w/ corrosion resistant #12-14 x 1" long hex head self-drill fasteners w/ 5/8" seal washer @ 12" o.c.

24GA Steel	
**Design Pressure:	Spacing:
-78.6 PSF	@ 5' o.c.
-159.8 PSF	@ 2' o.c.

The 0.032" Aluminum panels were fastened over 16GA supports using corrosion resistant X"-14 x 1-1/4" long hex head self-drill fasteners w/ 5/8" seal washer located at every other low cell of the panel as shown on install details. The fixed end was fastened at every low cell of the panel. The panel side-joints were overlapping fastened w/ corrosion resistant #12-14 x 1" long hex head self-drill fasteners w/ 5/8" seal washer @ 12" o.c.

0.032" Aluminum		
*Design Pressure:	Spacing:	
-47.1 PSF	@ 5' o.c.	
-156.4 PSF	@ 2' O.C.	
	*Design Pressure: -47.1 PSF -156.4 PSF	

FL # 35396.2 7.2" Rib Panel

The panels were installed over 16GA supports fastened w/ corrosion resistant $1/4" - 14 \times 1-1$ ¹4" long hex head self-drill fasteners with 5/8" seal washer located at every low cell of the panel. The panel side-joints were overlapping corrosion resistant #12-14 x 1" long hex head self-drill fasteners w/ S/8" seal washer @ 18" o.c.

	0.032" Alur	ninum
Spacing:	**Design Presure	Spacing
@ 5' o.c.	-61.1	@ 5' o.c.
@ 2' o.c.	-104.0	@ 2' 0.c.
	Spacing: @ 5' o.c. @ 2' o.c.	0.032" Alur Spacing: **Design Presure @ 5' o.c61.1 @ 2' o.c104.0

FL # 35396.3 Edge-Loc 1.0: 0.032" nom.) 16" coverage Aluminum over 1 2" min. Plywood

The panel was fastened thru top layer of underlayment members into 15/32" 4 ply-CDX plywood attached to framing supports using 8D x 2-1/2" coated ring shank nails spaced @ 6"o.c. Panel fastener: Corrosion resistant #10x15 Pancake Head screws starting 12" from panel end spaced 16"o.c. One #10x15 PH screw secured male and female leg overlap 3" from each end Underlayments applied: H.T. ProQuick (adhesive backed) single layer between adjacent sheets. Fire barrier; single layer of Versashield 5" overlap between adjacent panels.

FL # 35396.4 Large Precision Tile Panel 14.5" x 0.032 Aluminum Non-H The panel was fastened thru the top layer of underlayment membrane into 5/8" plywood attached to 2 x 10 wood structural framing supports using 8D x 2-1/2" long ring shank nails fastened using corrosion resistant (2) #10-13 x 1" long GP concealor screws. Fasteners located at pre-punched fastener holes @ 12-7/8" o.c. on the top nail flange for each panel. A layer, of self-adhering Waterproof Membrane was on top of the plywood sheathing substrate. **Design Pressure: Fastener Spacing: -202 PSF 12.875" o.c. 12.875" o.c. **O		-52.5 F	SF		
The panel was fastened thru the top layer of underlayment membrane into 5/8" plywood attached to 2 x 10 wood structural framing supports using 8D x 2-1/2" long ring shank nails fastened using corrosion resistant (2) #10-13 x 1" long GP concealor screws. Fasteners located at pre-punched fastener holes @ 12-7/8" o.c. on the top nail flange for each panel. A layer, of self-adhering Waterproof Membrane was on top of the plywood sheathing substrate. **Design Pressure: Fastener Spacing: -202 PSF 12.875" o.c.	FL # 35396.4	Large Precision Tile F	Panel 14.5" x 0.	032 Aluminum	Non-HVHZ
**Design Pressure: Fastener Spacing: -202 PSF 12.875" o.c.	crews. Fasteners located at pre-p adhering Waterproof Membrane	unched fastener holes @ 12-7/8 was on top of the plywood shea	B" o.c. on the top nail flan, thing substrate.	ge for each panel. Ala	NYAN AS Self-
**Design Pressure: Fastener Spacing: -202 PSF 12.875" o.c.	adhering Waterproof Membrane v	was on top of the plywood sheat	thing substrate.	MARKE D.	BOWD
-202 PSF 12.875" o.c.		**Design Pressure:	Fastener Spacing:	5°00' 10	ENSE V
		-202 PSF	12.875" o.c.		10704

FL # 35396.5

Large Precision Tile Panel

The panel was fastened thru the top layer of underlayment membrane into 5/8" plywood attached to 2 x 10 wood structural framing supports using 8D x 2-1/2" long ring shank nails fastened using corrosion resistant (2) #10-13 x 1" long GP concealor screws. Fasteners located at pre-punched fastener holes @ 12-7/8" o.c. on the top nail flange for each panel. A layer of self-adhering Waterproof Membrane was on top of the plywood sheathing substrate.

Fastener Spacing:
12.875" o.c.

** DESIGN PRESSURE INCLUDES A SAFETY MARGIN OF 2:1

14.5" x 24GA Steel

'FL # 35396.6 M-36 Panel (36" wide): 24GA & 0.032" Aluminum

M-36 Panel installed over 16GA Steel purlins @ 12" o.c. w/ the shorter side of the system fastened using corrosion resistant (1) #12 x 1-1/4" HWH SDS w/ neoprene washer (per manufacturer) @ ea. valley located 6" o.c. The first panel & ea. panel joint was fastened at the longer side of the system using a single row of #12 x 1-1/4" HWH SDS w/ neoprene washer (per manufacturer) @ 12" o.c.

*Design Pressure:	Spacing
-70 PSF	@ 5' o.c.
-107 PSF	@ 1' o.c.
	-70 PSF -107 PSF

FL # 35396.7 Precision Diamond Tile: 7.25" x 0.032" Aluminum

The panel was fastened thru the top layer of underlayment membrane into 5/8" plywood attached to 2 x 10 wood structural framing supports using 8D x 2-1/2" long ring shank nails fastened using corrosion resistant (2) #10-13 x 1" long GP concealor screws. Fasteners located at pre-punched fastener holes @ 12-7/8" o.c. on the top nail flange for each panel. A layer of self-adhering Waterproof Membrane was on top of the <u>plyw</u>ood sheathing substrate.

**Design Pressure:	Fastener Spacing:
-217 PSF	6-3/8"O.C.

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The panel was fastened thru the top layer of underlayment membrane into 5/8" plywood attached to 2 x 10 wood structural framing supports using 8D x 2-1/2" long ring shank nails fastened using corrosion resistant (2) #10-13 x 1" long GP concealor screws. Fasteners located at pre-punched fastener holes @ 12-7/8" o.c. on the top nail flange for each panel. A layer of self-adhering Waterproof Membrane was on top of the plywood sheathing substrate.

	**Design Pressure: Fastener Spacing:	
	-243 PSF	6-3/8"O.C.
FL # 35396.9 R-36 Panel (36" wide): 22	GA Steel, 24GA Steel, .03	32" Alum & .040" Alum

Non-HVHZ

Non-HVHZ

Non-HVHZ

The panels were installed over 16GA supports fastened w/ corrosion resistant #12-14 x 1" self-drill fasteners w/ 0.55" dia. seal washer head spaced as shown on the install detail. Panel side joints were overlapping using corrosion resistant #12-14 x %" self-drill lap fasteners w/ 0.55" dia. seal washer head located at 12" o.c.

22 GA		24GA	
**Design Pressure:	Spacing:	**Design Pressure:	Spacing:
-52.8 PSF	@ 5'o.c.	-49.5 PSF	@ 5'o.c.
*154.1 PSF	@ 2'o.c.	-159.1 PSF	@ 2'o.c.
0.032" Aluminum		0.040" Aluminu	ım
**Design Pressure:	Spacing:	**Design Pressure:	Spacing
-28.8 PSF	@ 5'o.c.	-49.7 PSF	@ 5'o.c.
-143.2 PSF	@ 2'o.c.	-143.2 PSF	@ 2'0.c

FL # 35396.10 Snap-Clad Panel 1601/standing seam Coppler 16" wide x 1 - 3/4 high

16oz Copper Snap-Clad panel with clips thru fastened to 19/32" thick APA plywood, grade B-C fastened with corrosion resistant (2) #10-16 x 1" long, SS, pancake head fasteners; two per clip. Manufacturer requires stainless steel fasteners. Panel Clip: one piece 3-%" wide x 1-7/8" high with a 1-3/8" wide, horizontal leg fabricated from No. 18 MSG stainless steel. Panel width: 16" wide by 1-3/4" high rib at the female panel, sealant allowed at panel side joints. An underlayment of 60 MIL "high temperature" membrane is required by manufacturer. Fasteners thru clips to substrate are concealed behind the adjacent requires the panels.

**Design Pressure:	
-52.5 PSF	

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FL # 35396.11 Snap-On Standing Seam Panel: 24GA Steel & 0.032" Aluminum w/ 1" Right Angle Vertical Legs

Snap-On standing seam panels with concealed clips @ 12" o.c. with snap-on batten caps over clips and 1" high legs fastened to 19/32" plywood deck w/ corrosion resistant (2) #10-12 fasteners per clip. Clips are concealed between the adjacent vertical legs of the panels & a batten cap Is Installed over the outside of the vertical legs to retainer lugs on the clips. Panel Width: 12"

*Design Pressure:	Material:	Support Spacing
41.6 PSF	24GA	1'-0"o.c.
41.3 PSF	0.032" Alum.	1'-0"o.c.

FL # 35396.12 Tite-Loc Plus 0.040" Aluminum x 12" & 0.040" Aluminum x 16"

Tite-Loc Plus panel fastened to 19/32" APA plywood deck with corrosion resistant (2) #10-12 x 1" long pancake type A fasteners. The panels were attached to the perimeter of the wood deck at 6" o.c. Panel Clip: Tite-Loc 2-Piece clips w/ #10-12 x 1" fasteners.

0.040" Alum. x 12"		0.040" Alum. x 16"	
**Design Pressure:	Clip Spacing	**Design Pressure:	Clip Spacing
107.9 PSF	24"o.c.	76.7 PSF	24"o.c.
146.9 PSF	12"o.c.	87.15 PSF	12"o.c.
152.1 PSF	6"o.c.	105.3 PSF	6"o.c.

FL # 35396.13 Tite-Loc Plus: 12" x 0.040" Aluminum Panel over 22GA Metal B-Deck

Standing seam panel was fastened over min. 22GA, Grade 33 B-deck @ max. 5' o.c. with clip using corrosion resistant (2) #14-10 Dekfast screws per clip through 4" x S" x 16GA bearing plate and rigid insulation into deck; fastener should be of sufficient length to penetrate min. %" through the deck. Tite-Loc Plus AR sliding clip: 2 fasteners per cllp, Clip Tab: 4.313" wide, S0ksl, 22GA G90 Coated Steel; Clip Base: 2.5" wide, 50ksl, 18GA G90 coated steel. MSA "Quick Stick HT" 40 mil peel & stick or approved equal. Installed over insulation board as per manufacturer's install guidelines. Insulation board: 2" min. - 4" max. thickness to comply w/ FBC current edition. Slope X:12 or greater in accordance w/FBC current edition. Rib Height: 2"

**Design Pressure:	Clip Spacing:
-52.5 PSF	@ 48"o.c.
-160.95 PSF	@ 12"o.c.

** DESIGN PRESSURE INCLUDES A SAFETY MARGIN OF 2:1

FL # 35396.14 Tite-Loc Plus: 12" x 22GA Steel Panel over 22GA Metal B-Deck

Standing seam panel was fastened over min. 22GA, Grade 33 B-deck @ max. 5' o.c. with clip using corrosion resistant (2) #14-10 Dekfast screws per clip through 4" x 5" x 16GA bearing plate and rigid insulation into deck; fastener should be of sufficient length to penetrate min. %" through the deck. Tite-Loc Plus AR sliding clip: 2 fasteners per clip, Clip Tab: 4.313" wide, S0ksi, 22GA G90 Coated Steel; Clip Base: 2.5" wide, S0ksl, 18GA G90 coated steel. MSA "Quick Stick HT" 40 mil peel & stick or approved equal. Installed over insulation board as per manufacturer's install guidelines. Insulation board: 2" min. - 4" max. thickness to comply w/ FBC current edition. Slope %:12 or greater in accordance w/FBC current edition. Rib Height: 2"

**Design Pressure:	Clip Spacing:	
-56.0 PSF	@ 48"o.c.	
-186.4 PSF	@ 6"o.c.	

FL # 35396.15 Tite-Loc Plus: 1B" x 24GA Panel over 22GA Metal B-Deck

Standing seam panel was fastened over min. 22GA, Grade 33 B-deck @ max. 5' o.c. with dip using corrosion resistant (2) #14-10 Dekfast screws per clip through 4" x 5" x 16GA bearing plate and rigid insulation into deck; fastener should be of sufficient length to penetrate min. %" through the deck. Tite-Loc Plus AR sliding clip: 2 fasteners per clip, Clip Tab: 4.313" wide, 50ksi, 22GA G90 Coated Steel; Clip Base: 2.5" wide, S0ksi, 18GA G90 coated steel. MSA "Quick Stick HT" 40 mil peel & stick or approved equal. Installed over insulation board as per manufacturer's install guidelines. Insulation board: 2" min. - 4" max. thickness to comply w/ FBC current edition. Slope %:12 or greater in accordance w/FBC current edition. Rib Height: 2"

**Design Pressure:	Clip Spacing:	
-30.0 PSF	@ 48"o.c.	
-78.5 PSF	@ 6"o.c.	

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FL # 35396.16 Tite-Loc Plus: 16" x 0.032" Aluminum over min. 19/32" APA Plywood

Non-HVH

Standing seam panel was fastened over min. 19/32" APA rated plywood for new and existing constructions with clip using corrosion resistant (2) #10-12 pancake head type A wood screws per clip into deck; fastener should be of sufficient length to penetrate min. 3/16" through the deck. Tite-Loc Plus AR sliding clip: 2 fasteners per clip, Clip Tab: 4.313" wide, 50ksi, 22GA G90 Coated Steel; Clip Base: 2.5" wide, 50ksi, 18GA G90 coated steel. %:12 or greater in accordance w/FBC current edition.

**Design Pressure:	Clip Spacing:	
-61.1 PSF	@ 24"o.c.	
-74.1 PSF	@ 12"o.c.	

Certificate of Indendence:

Locke Bowden, P.E. does not have, not will acquire a financial interest in any company manufacturing or distributing products under this evaluation.

Locke Bowden, P.E is notowned, operated, or controlled by any company, or manufacturer distributing products under this report.

Limitations:

- 1. Underlayment to be compliance with current Florida Building Code (FBC) 2023 8TH edition.
- 2. Minimum slope to be compliant with Florida Building Code 2023 8th ed., and per with Manufacturer's installation reference.
- 3. Products are compliant with State of Florida product approval per Rule 61G20-3. Compliance Method: 1-D
- 4. Engineering analysis for "project specific approval by local authorities w/jurisdiction is allowed by other registered engineers.
- 5. Fire classification is not part of this acceptance. Shear diaphragm values are outside this report.
- 6. Support framing in compliance w/FBC 2023 8th ed., Chapter 22 for Steel, Chapter for 23 Wood and Chapter 16 for Structural Loading.
- 7. This report does not imply warranty, installation, recommended product use outside of this report

		Reference Data:
Farabaugh Engineering & Testing (TST-1654)	T233-05	TAS 125-03 (UL 580-94)
Farabaugh Engineering & Testing (TST-1654)	T222-05	TAS 125-03 (UL 580-94)
Farabaugh Engineering & Testing (TST-1654)	T225-05	UL 1897-98
Farabaugh Engineering & Testing (TST-1654)	T224-05	UL 1897-98
Underwriters Laboratory	Construction # 614	UL 580-2006
Farabaugh Engineering & Testing (TST-1654)	T347-07	TAS 125-03 (UL 580-94)
Farabaugh Engineering & Testing (TST-1654)	T345-07	TAS 125-03 (UL 580-94)
Fenestration Test Laboratory (TST-1657)	15-5715	ASTM E 1592-05(2012)
Farabaugh Engineering & Testing (TST-1654)	T170-08	ASTM E 1592-01
Farabaugh Engineering & Testing (TST-1654)	T171-08	ASTM E 1592-01
Farabaugh Engineering & Testing (TST-1654)	T176-08	ASTM E 1592-01
Farabaugh Engineering & Testing (TST-1654)	T175-08	ASTM E 1592-01
Farabaugh Engineering & Testing (TST-1654)	T166-C8	ASTM E 283-04
		ASTM E 331-00
Farabaugh Engineering & Testing (TST-1654)	T281-08	A5TM E 1592-01
Farabaugh Engineering & Testing (TST-1654)	T227-08	ASTM E 1592-01
Farabaugh Engineering & Testing (TST-1654)	T267-08	A5TM E 283-04
		ASTM E 331-00
Farabaugh Engineering & Testing (TST-1654)	T126-09	ASTM E 1592-01
Farabaugh Engineering & Testing (TST-1654)	T124-09	ASTM E 1592-01
Farabaugh Engineering & Testing (TST-1654)	T132-09	ASTM E 283-04
		ASTM E 331-00
Farabaugh Engineering & Testing (TST-1654)	1330-09	UL 580/1897
Farabaugh Engineering & Testing (TST-1654)	T114-10	UL 580/1897
Farabaugh Engineering & Testing (TST-1654)	T102-10	UL 580/1987
Farabaugh Engineering & Testing (TST-1654)	T163-07	TAS 125-03
Intertek Architectural Testing (TST-1527)	E1977.01-450-18	TAS 125-03
Farabaugh Engineering & Testing (TST-1654)	T111-17	UL 580-06/1897-04
Farabaugh Engineering & Testing (TST-1654)	T112-17	UL 580-06/1897-04
Farabaugh Engineering & Testing (TST-1654)	T109-17	UL 580-06/1897-04
Farabaugh Engineering & Testing (TST-1654)	T110-17	UL 580-06/1897-04



Equivalency statements:

UL 580-94 is equivalent to UL 580-06 test standard. UL 1897-98, 04 is equivalent to UL 1897-2015 test standard. ASTM E 1592-01 is equivalent to ASTM E 1592-05(2012) test standard.