

Florida Product Approval 10094

Category: Metal Roofing

METHOD 1-D

Compliant with CURRENT Florida Building Code Compliant

with Florida Product Approval Rule # 61G20-3

Compliant Quality Assurance Program: Keystone Certifications

FL 10094.1 Product: Min. 26GA RIB Panel Over 1x4 Wood Purlins over 15/32" Plywood Non-Structural Application HVHZ

36" wide 80ksi $\frac{3}{8}$ " tall rib @ 9" o.c. thru fastened For HVHZ use RAS 133
 Substrate: 1x4 No. 2 SYP wood purlins over 15/32" APA plywood 19/32" for HVHZ APA plywood or wood plank. In reroofing applications where deck is less than 19/32" apply (min 15/32" over existing) Wood purlins fastened to plywood w/ min. 8DX2-1/2" ring shank 4" o.c. max spacing over supports 24" max. o.c. Fire Barrier: $\frac{1}{4}$ " Dens Deck or approved equal.
 Corrosion Resistant Fastener #9-15 Woodgrip® w/ sealing washer or approved equal; $\frac{1}{4}$ " min. penetration through plywood. Min. slope shall comply with CURRENT FBC. For slopes less than 3:12, sealant must be used in side laps.

**Design Pressure:	Fastener Pattern:	Fastener Spacing:
-106.75 PSF	9" – 9" – 9" – 9"	@ 24" o.c.
-164.25 PSF	9" – 9" – 9" – 9"	@ 12" o.c.

FL 10094.2 Product: Min. 26GA RIB Panel Over 15/32" Plywood Non-Structural Application HVHZ

36" wide 80ksi $\frac{3}{8}$ " tall rib @ 9" o.c. thru fastened For HVHZ use RAS 133
 Substrate: 15/32" APA plywood fastened – Non-HVHZ, 19/32" for HVHZ APA Plywood or wood plank. In reroofing applications where deck is less than 19/32" apply (min. 15/32" over existing). The attachment of decking shall be no less 8DX2-1/2" ring shank nails @ 6" o.c. max. spacing. For Non-HVHZ use min. 15/32" APA plywood @ 24" o.c. over supports 24" max. o.c. Fire Barrier: $\frac{1}{4}$ " Dens Deck or approved equal.
 Corrosion Resistant Fastener #9-15 Woodgrip® w/ sealing washer or approved equal thru panel rib, $\frac{1}{4}$ " min. penetration through plywood. Install per manufacturer's details in compliance with CURRENT FBC Min. Slope shall comply with CURRENT FBC. For slopes less than 3:12, sealant must be used in side laps.

**Design Pressure:	Fastener Pattern:	Fastener Spacing:
-71.75 PSF	9" – 9" – 9" – 9"	@ 24" o.c.
-159.25 PSF	6.5" – 2.5" – 6.5" – 2.5" – 6.5" – 2.5" – 6.5" – 2.5"	@ 12" o.c.

FL 10094.3 Product: 26GA 5V Crimp Over Plywood Non-Structural Application HVHZ

24" wide 50ksi $\frac{3}{8}$ " rib height thru fastened For HVHZ use RAS 133
 Substrate: 15/32" APA plywood fastened – Non HVHZ, 19/32" for HVHZ APA plywood or wood plank. In reroofing applications where deck is less than 19/32" apply (min 15/32" over existing). The attachment of decking shall be no less 8DX2-1/2" ring shank nails @ 6" o.c. max spacing over supports 24" max o.c. For Non-HVHZ use min 15/32" APA plywood over supports 24" max o.c. Fire Barrier: $\frac{1}{4}$ " Dens Deck or approved equal.
 Corrosion Resistant Fastener #9-15 WoodZac® w/ Zac head w/ sealing washer, or approved equal thru panel rib, $\frac{1}{4}$ " min penetration through plywood. Min. slope shall comply with FBC 2017. For slopes less than 3:12, sealant must be used in side laps. Install per manufacturer's details in compliance with CURRENT FBC.

**Design Pressure:	Fastener Spacing:
-108.5 PSF	@ 12" o.c. in panel rib
-156.5 PSF	@ 6" o.c. in panel rib

FL 10094.4 Product: 26GA 5V Crimp Over Shingles Non-Structural Application Non-HVHZ

24" wide 80ksi 0.423" tall rib thru fastened
 Substrate: one layer of shingles (optional) over 15/32" APA plywood over supports 24" max o.c.
 Corrosion Resistant Fastener #9-15 WoodZac® w/ Zac head w/ sealing washer, or approved equal thru panel flats, $\frac{1}{4}$ " min penetration thru plywood. Min. slope shall comply w/ FBC 2017. For slopes less than 3:12, sealant must be used in side laps.

**Design Pressure:	Fastener Pattern:	Fastener Spacing:
-56.0 PSF	12" – 12"	@ 24" o.c.
-101.0 PSF	9.5" – 2" – 9.5"	@ 24" o.c.
-116.0 PSF	12" – 12"	@ 12" o.c. in the flat of the panel

FL 10094.5 Product: 26GA 5V Crimp Over 1x4 Purlins Non-Structural Application Non-HVHZ

24" wide 80ksi 0.423" tall rib thru fastened
 Substrate: 1x4 No. 2 SYP over one layer of shingles (optional) over 15/32" plywood. 1x4 wood purlins fastened to plywood. #8 deck screws $\frac{1}{4}$ " penetration thru plywood over supports 24" max. o.c.

Corrosion Resistant Fastener #9-15 WoodZac® w/ Zac head w/ sealing washer, or approved equal thru panel flats, ¼" min. penetration through plywood. Min. slope shall comply with CURRENT FBC For slopes less than 3:12, sealant must be used in side laps.

**Design Pressure:	Fastener Pattern:	Fastener Spacing:
-71.0 PSF	12" – 12"	@ 24" o.c.
-146.0 PSF	9.5" – 2" – 9.5"	@ 24" o.c. in the flat of the panel

FL 10094.6 Product: Corrugated 26GA Rib Panel Over Plywood Non-Structural Application Non-HVHZ

21-1/2" wide 80ksi ½" tall rib @ 2.6875" o.c. thru fastened

Substrate: over one layer of shingles (optional) 15/32" APA plywood over supports 24" max o.c.

Corrosion Resistant Fastener #9-15 WoodZac® w/ Zac head w/ sealing washer, or approved equal thru panel flats, ¼" min penetration through plywood. Min slope shall comply with FBC 2017. For slopes less than 3:12, sealant must be used in side laps.

**Design Pressure:	Fastener Pattern:	Fastener Spacing:
-63.5 PSF	10 ¾" – 10 ¾"	@ 24" o.c.
-116.0 PSF	5 3/8" – 5 3/8" – 5 3/8" – 5 3/8"	@ 24" o.c.

FL 10094.7 Product: Corrugated 26GA Rib Panel Over 1x4 Purlins Non-Structural Application Non-HVHZ

21-1/2" wide 80ksi ½" tall rib @ 2.6875" o.c.

Substrate: 1x4 No. 2 SYP wood purlins over one layer of shingles (optional) 15/32" APA plywood. 1x4 SYP wood purlins fastened to 15/32" APA plywood w/ min. #8 deck screws w/ min ¼ thru plywood over supports 24" max. o.c.

Corrosion Resistant Fastener #9-15 WoodZac® w/ Zac head w/ sealing washer, or approved equal thru panel flats, ¼" min. penetration through plywood. Min. slope shall comply w/ CURRENT FBC . For slopes less than 3:12, sealant must be used in side laps.

**Design Pressure:	Fastener Pattern:	Fastener Spacing:
-93.5 PSF	10 ¾" – 10 ¾"	@ 24" o.c.
-131.0 PSF	5 3/8" – 5 3/8" – 5 3/8" – 5 3/8"	@ 24" o.c.

FL 10094.8 Product: PBR 26GA Over Purlins Non-Structural Application HVHZ

36" wide 80ksi 1-1/4" tall rib @ 12" o.c. thru fastened

For HVHZ use RAS 133

Substrate: 1x4 No. 2 SYP wood purlins over 15/32" APA plywood. Wood purlins fastened w/ 8Dx2-1/2" ring shank nails @ max. of 4" o.c. to plywood w/ min ¼" through plywood over supports 24" max o.c.

Corrosion Resistant Fastener #9-15 Woodgrip® w/ sealing washer or approved equal ¼-14 x 7/8" lap screw w/ sealing washer at 24" o.c. in panel side laps, ¼" min penetration through plywood. Fire Barrier: ¼" Dens Deck or equal. Min slope shall comply w/ CURRENT FBC. For slopes less than 3:12, sealant must be used in side laps.

**Design Pressure:	Fastener Pattern:	Fastener Spacing:
-100.5 PSF	12" – 12" – 12"	@ 24" o.c.
-151.75 PSF	7" – 5" – 7" – 5" – 7" – 5"	@ 12" o.c. thru fastened in the flat of the panel

FL 10094.9 Product: PBR 26GA Over Plywood Non-Structural Application HVHZ

36" wide 80ksi 1-1/4" rib height @ 12" o.c. thru fastened

For HVHZ use RAS 133

Substrate: For HVHZ 19/32" plywood. Reroofing - if less than 19/32" plywood, apply 15/32" using 8Dx2-1/2" ring shank nails @ max. of 6" o.c. to plywood w/ min. ¼" penetration thru plywood over supports 24" max o.c. For Non-HVHZ 15/32" APA plywood. Wood purlins w/ min. ¼" penetration through plywood over supports 24" max o.c.

Corrosion Resistant Fastener #9-15 Woodgrip® w/ sealing washer or approved equal. ¼-14 x 7/8" lap screw w/ sealing washer @ 24" o.c. in panel side laps ¼" min. penetration through plywood. Fire Barrier: ¼" Dens Deck or equal. Min. Slope shall comply w/ CURRENT FBC. Slopes less than 3:12, sealant must be used in side laps.

**Design Pressure:	Fastener Pattern:	Fastener Spacing:
-60.5 PSF	12" – 12" – 12"	@ 24" o.c.
-154.75 PSF	7" – 5" – 7" – 5" – 7" – 5"	@ 12" o.c. thru fastened in the flat of the panel

FL 10094.10 Product: RIB Min. 29GA Over Purlins Non-Structural Application Non-HVHZ

36" wide 80ksi ¾" tall rib @ 9" o.c. thru fastened

Substrate: 1x4 No.2 SYP wood purlins over one-layer asphalt shingle (optional) over 15/32" APA plywood. Wood purlins fastened to plywood w/ min. #8 deck screws over supports 24" max o.c.

Corrosion Resistant Fastener #9-15 HWH Woodgrip® w/ sealing washer or approved equal thru panel flat, ¼" min penetration through plywood. Min. slope shall comply w/ CURRENT FBC slopes less than 3:12, sealant must be used in side laps.

**Design Pressure:	Fastener Pattern:	Fastener Spacing:
-86.0 PSF	9" – 9" – 9" – 9"	@ 24" o.c.
-116.0 PSF	6.5" – 2.5" – 6.5" – 2.5" – 6.5" – 2.5" – 6.5" – 2.5"	@ 24" o.c.

FL 10094.11 Product: RIB Min. 29GA Over 15/32" Plywood Non-Structural Application Non-HVHZ

36" wide 80ksi 3/4" tall rib @ 9" o.c. thru fastened

Substrate: Over one layer of shingle (optional) over 15/32" APA plywood over supports 24" max o.c.

Corrosion Resistant Fastener #9-15 HWH Woodgrip® w/ sealing washer or approved equal thru panel flat, 1/4" min penetration through plywood. Min. slope shall comply w/ CURRENT FBC. For slopes less than 3:12, sealant must be used in panel side laps.

**Design Pressure:	Fastener Pattern:	Fastener Spacing:
-71.0 PSF	9" – 9" – 9" – 9"	@ 24" o.c.
-108.5 PSF	6.5" – 2.5" – 6.5" – 2.5" – 6.5" – 2.5" – 6.5" – 2.5"	@ 24" o.c.

FL 10094.12 Product: Tuff-Rib 26GA over 2 x 6 SYP Wood Treated Purlins Non-Structural Application Non-HVHZ

36" wide 3/4" tall rib

Substrate: Min. No 2 SYP wood treated purlins spaced max. 24" o.c. Corrosion Resistant Fastener: #10 x min. 1-1/2" HWH fasteners with 1/4" bonded sealing washers fastened adjacent to each major rib, to penetrate through the panels and embed fully into the wood purlins.

**Design Pressure:	Fastening Pattern:	Fastener Spacing:
- 52.5 PSF	9" – 9" – 9" – 9"	@ 24" o.c.
- 67.5 PSF	6.5" – 2.5" – 6.5" – 2.5" – 6.5" – 2.5" – 6.5" – 2.5"	@ 24" o.c.

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

REFERENCE DATA:

Force Engineering & Testing (TST-5328)	#234-0063T-07 D-F	TAS 125-03 UL 580-94 ¹ /1897-98 ²
Farabaugh Engineering & Testing (TST-1654)	#T128-07	TAS 100-95
	#T272-08	TAS 100-95
PRI Construction Materials Technologies (TST-5878)	#VLS-004-02-01	TAS 110-00 (G26/B117 (G155/B117)
	#VLS-005-02-01	TAS 110-00 (G26/B117 (G155/B117)
Force Engineering & Testing (TST-5328)	#234-0063T-07 A-C	TAS 125-03 UL 580-94 ¹ /1897-98 ²
Farabaugh Engineering & Testing (TST-1654)	#T126-07	TAS 100-95
	#T270-08	TAS 100-95
PRI Construction Materials Technologies (TST-5878)	#VLS-004-02-01	TAS 110-00
	#VLS-005-02-01	TAS 110-00
Force Engineering & Testing (TST-5328)	#234-0063T-07 M-O	TAS 125-03 UL 580-94 ¹ /1897-98 ²
Farabaugh Engineering & 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 (G26/B117 (G155/B117)
	#VLS-005-02-01	TAS 110-00 (G26/B117 (G155/B117)
Force Engineering & Testing (TST-5328)	#234-0425T-07 A, B	UL 580-94 ¹ /1897-98 ²
	#234-0016T-09 G	UL 580-94 ¹ /1897-98 ²
Force Engineering & Testing (TST-5328)	#234-0016T-09 B, C	UL 580-94 ¹ /1897-98 ²
Force Engineering & Testing (TST-5328)	#234-0049T-11 B	FM 4471-95 ³
Force Engineering & Testing (TST-5328)	#234-0016T-09 D, E	UL 580-94 ¹ /1897-98 ²
Force Engineering & Testing (TST-5328)	#234-0016T-09 F, G	UL 580-94 ¹ /1897-98 ²
Force Engineering & Testing (TST-5328)	#194-0134T-11	FM 4471-95 ³
Force Engineering & Testing (TST-5328)	#234-0063T-07 J-L	TAS 125-03 UL 580-94 ¹ /1897-98 ²
Farabaugh Engineering & Testing (TST-1654)	#T129-07	TAS 100-95
	#T273-08	TAS 100-95
PRI Construction Materials Technologies (TST-5878)	#VLS-004-02-01	TAS 110-00 (G26/B117 (G155/B117)
	#VLS-005-02-01	TAS 110-00 (G26/B117 (G155/B117)
Force Engineering & Testing (TST-5328)	#234-0063T-07 G-I	TAS 125-03 UL 580-94 ¹ /1897-98 ²
Farabaugh Engineering & Testing (TST-1654)	#T132-07	TAS 100-95
	#T271-08	TAS 100-95
PRI Construction Materials Technologies (TST-5878)	#VLS-004-02-01	TAS 110-00 (G26/B117 (G155/B117)
	#VLS-005-02-01	TAS 110-00 (G26/B117 (G155/B117)
Force Engineering & Testing (TST-5328)	#234-0261T-07 C, D	UL 580-94 ¹ /1897-98 ²
Force Engineering & Testing (TST-5328)	#234-0049T-11 C	FM 4471-92
Force Engineering & Testing (TST-5328)	#234-0261T-07 A, B	UL 580-94 ¹ /1897-98 ²
Force Engineering & Testing (TST-5328)	#234-0049T-11 C	FM 4471-95 ³
PRI Construction Materials Technologies (TST-5878)	#FAE-027-02-01	ASTM E 8-13
PRI Construction Materials Technologies (TST-5878)	#FAE-027-02-01	ASTM E 1592-05

OPTION: SYP 1X4 MAY BE ATTACHED OVER PLYWOOD. SAME FASTENING AND PENETRATION INTO PLYWOOD SUBSTRATE 3/8"

EQUIVALENCY STATEMENT

1. The UL 580-94 test standard is equivalent to UL 580-06 test standard.
2. The UL1897-98 test standard is equivalent to UL1897-12 test standard.
- 3 The FM 4471-95 test standard is equivalent to the FM 4471-92 test standard.

LIMITATIONS

1. Under-layment to be compliance with current Florida Building Code (FBC) see Chart 1507
2. Minimum slope to be compliant with Florida Building Code 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/CURRENT FBC Chapter 22 Steel, Chapter 23 Wood and Chapter 16 Structural Loading.
7. This report does not imply warranty, installation, recommended product use outside of this report.

Certificate of Independence:

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