



Metal Roof Certification & Listing Program

Certification Report



11030-002-KCI

145 Limekiln Road, Suite 100B
New Cumberland, PA 17070
www.keystonecerts.com

Issue Dated: 10/27/2017
Revision Date: 6/25/2018
Expiration Date: 10/27/2022

Construction Specifications Institute (CSI) Category:

Division: 07 00 00 – Thermal & Moisture Protection

Section: 07 41 13 – Metal Roof Panels

1. Program Licensee:



1st Coast Metal Roofing Supply
186 SR 207
East Palatka, FL 32131
386-325-0242
<http://www.1stcoastmrs.com/>

2. Certified Roof Covering:

1st Coast Metal Roofing Supply's Model Armour Rib 29 Ga. non-structural through-fastened metal roof panels installed over plywood sheathing roof deck for use in new construction and re-roofing applications.

3. Scope of Certification:

This Certification Report provides technical data substantiating that the use of the certified roof covering and the evaluated roof systems are in compliance with the following:

- 2017 Florida Building Code - Building, 6th Edition, Section 1504.3.2.
- Florida Product Approval Rule 61G20-3.

Properties Evaluated:

- Wind Uplift Resistance
- Resistance to Foot Traffic

This Certification Report was used to qualify [Florida Product Approval FL 24397](#).

4. Evaluated Roof System Description:

4.1. **Roof Covering:** Armour Rib 29 Ga. metal roof covering panels are cold roll-formed from minimum 29 gauge ASTM A792 Grade 80 steel sheet. The panels are aluminum-zinc alloy coated per ASTM A792 (AZ50), and shall be installed in accordance with the manufacturer's instructions and this Certification Report.

4.2. **Roof Deck:** Armour Rib Panel metal roof panels are certified for use over solid or closely-spaced, nominal 15/32" B-C 4 Ply Plywood sheathing complying with 2017 Florida Building Code, Section 2303.1.5, with or without the use of 1x4 #2 SWP purlins at 24" O.C., with a minimum slope of 4% (1/2:12). Lap sealant shall be applied for installed slopes less than 25% (3:12). When used, 1x4 purlins are attached through the sheathing and into the rafters using (2) 8x3" deck screws max. 24" O.C.

4.3. **Anchorage:** Armour Rib 29 Ga. metal roof panels shall be through-fastened to the purlins or roof deck using #10-15 x 1-1/2" Woodgrip hex-head wood screws with bond-seal washer or equivalent, as specified in Table 1, applied in the patterns described in Appendix 1.



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5. Installation

Armour Rib 29 Ga. metal roof panels in new construction applications shall be installed in accordance with the 2017 Florida Building Code Section 1507.4, the manufacturer’s published installation instructions and this Certification Report.

Armour Rib 29 Ga. metal roof panels in re-roofing applications shall be installed in accordance with the 2017 Florida Building Code Sections 1507.4 & 1511, the manufacturer’s published installation instructions and this Certification Report.

The manufacturer’s installation instructions shall be made available at the time of installation. If there are differences between this report and the manufacturer’s installation instructions, this report shall take precedence.

6. Product Performance

The performance of the Armour Rib 29 Ga. non-structural through-fastened metal roof panels described in this Certification Report has been determined in accordance with:

- UL 580-94, *Tests for Uplift Resistance of Roof Assemblies.*
- UL 1897-98, *Uplift Tests for Roof Covering Systems.*
- FM 4470, *Resistance to Foot Traffic Test.*

As tested & reported by the following independent accredited laboratory:

Laboratory	Report Ref.
Force Engineering & Testing	384/593-0030T-10A, B 384/593-0030T-10C, D 384/593-0030T-10E

Note: The UL 580-94 standard is equivalent to the UL 580-06 standard, and the UL 1897-98 standard is equivalent to the UL 1897-2012 standard.

6.1. Wind Resistance

The allowable design uplift pressures for Armour Rib 29 Ga. anchored as described in Appendix 1, when tested in accordance with the referenced standards with an applied safety factor of 2.0 are found in Table 1.

Table 1

Description	Anchor Pattern	Anchor Man’f & Model	Max Design Uplift Pressure
Over 15/32” 4 Ply Plywood	A	SFS HiLo Woodgrip #10-15 x 1-1/2”	78.5 psf
Over 15/32” 4 Ply Plywood	B	SFS HiLo Woodgrip #10-15 x 1-1/2”	108.5 psf
Over 1x4 Purlins Over 15/32” 4 Ply Plywood	A	SFS HiLo Woodgrip #10-15 x 1-1/2”	108.5 psf
Over 1x4 Purlins Over 15/32” 4 Ply Plywood	B	SFS HiLo Woodgrip #10-15 x 1-1/2”	183.5 psf



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6.2. Resistance to Foot Traffic

The Armour Rib 29 Ga. non-structural through-fastened metal roof panels were tested per the referenced standard installed using Anchor Pattern A over 1x4 SWP purlins over 15/32" 4 ply plywood. The resultant deflection under load and permanent deflection were within the allowable limits defined by the standard.

7. Conditions of Use

Armour Rib 29 Ga. non-structural through-fastened metal roof panels must be insulated against other materials or metals including concrete, lead, copper and treated lumber that contains corrosive materials.

8. Limitations of Use

Armour Rib 29 Ga. non-structural through-fastened metal roof panels are not qualified for use in the High Velocity Hurricane Zone (HVHZ).

Fire classification, shear diaphragm design, roof deck design & attachment to supporting members are not within the scope of this Certification Report.

Roof support framing shall comply with 2017 Florida Building Code Chapter 22 for steel, Chapter 23 for wood and Chapter 16 for structural loading.

9. Licensed Manufacturing Facilities

This Certification Report is applicable only to Armour Rib 29 Ga. non-structural through-fastened metal roof panels manufactured at the following locations:

1st Coast Metal Roofing Supply 186 State Rd 207 East Palatka, Florida 32131

Each licensed facility is subject to periodic inspection by Keystone Certifications to verify conformance with Keystone Roof Covering Certification & Listing Program requirements.

10. Identification

Armour Rib 29 Ga. non-structural through-fastened metal roof panels represented by this report shall be identified with Keystone Roof Covering Certification & Listing Program certification labeling illustrated below, to be applied to individual panels, packaging, invoicing or bills of lading:

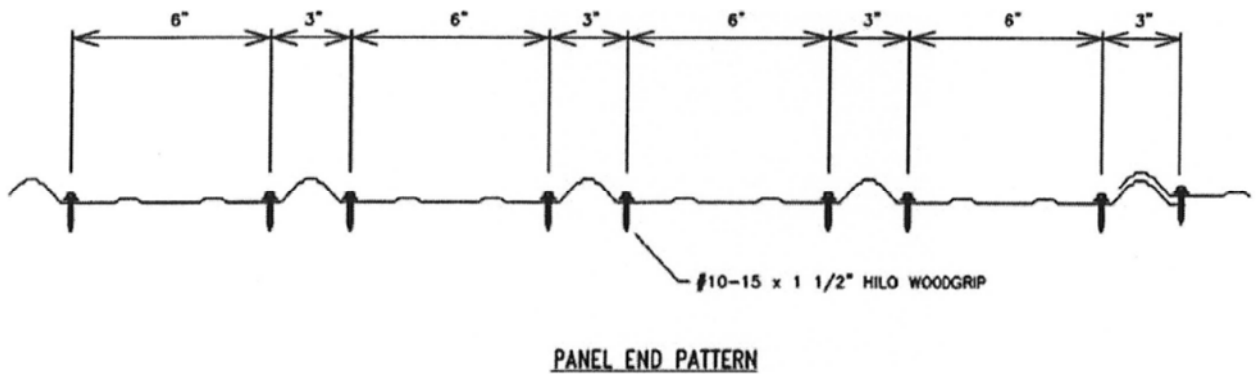
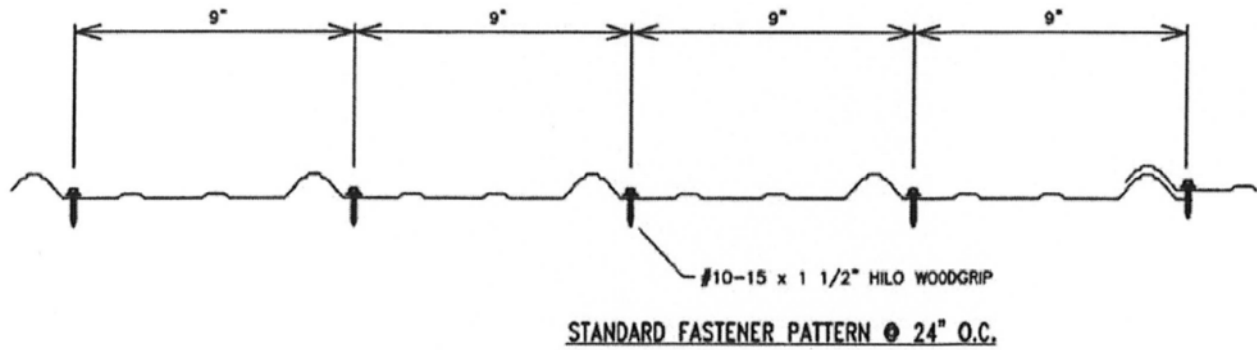


Aaron Shultz
Validations Manager

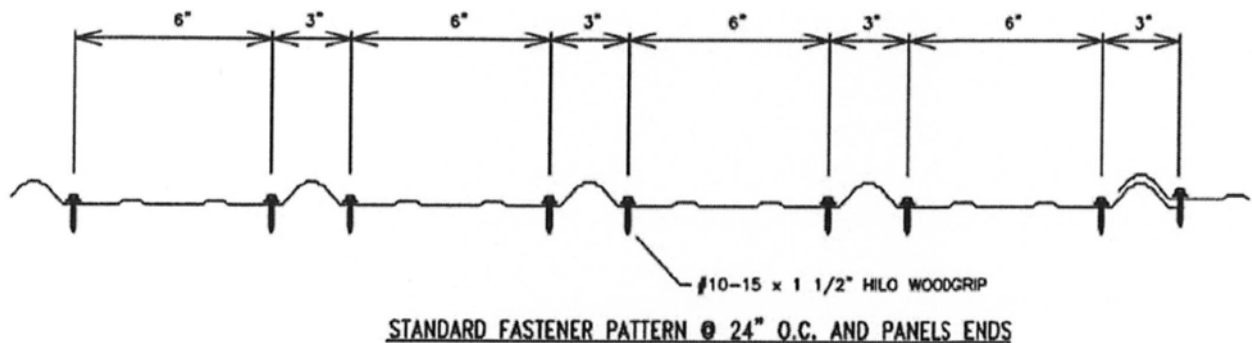
Appendix 1

Note: In all cases (new construction and re-roofing), the anchors shall fully penetrate the purlins or the plywood roof deck (as applicable).

Anchor Pattern A



Anchor Pattern B





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Certificate Revisions

Rev #	Date	Description
0	10/27/2017	Initial issuance.
1	1/8/2018	Added reference to associated Florida Product Approval No 24397.
2	1/23/2018	Added hyperlink to FL24397
3	6/25/2018	Removed ref's to measurements for mat'l thickness and yield strength, relying on applicable Gauge and steel Grade. Added ref to 1x4 purlin anchorage.