



Metal Roof Certification & Listing Program Certification Report



11030-010-KCI

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

Issue Dated: 3/11/2019
Revision Date: 10/12/2020
Expiration Date: 10/12/2025

Construction Specifications Institute (CSI) Category:

Division: 07 00 00 – Thermal & Moisture Protection

Section: 07 41 13 – Metal roof and wall panels

- 2020 Florida Building Code - Building, 7th Edition, Section 1504.3.2.
- Florida Product Approval Rule 61G20-3.

1. Program Licensee:



Properties Evaluated:

- Wind Uplift Resistance
- Resistance to Foot Traffic

This Certification Report was used to qualify Florida Product Approval FL27567-R2.

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 PBR 26 Ga. thick coated steel structural through-Fastened metal roof and wall panels installed over 14-Ga steel hat channel spaced supports for use in new construction 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:

4. Evaluated Roof System Description:

4.1. **Roof Covering:** Armour PBR metal roof and wall panels are 26 Ga., ASTM A 792 Grade 50 steel with AZ 55 Aluminum-Zinc Alloy coating. The panels shall be installed in accordance with the manufacturer's instructions and this Certification Report.

4.2. **Roof Deck:** Armour PBR 26 Ga. metal roof and wall panels are certified for use over 4" wide x 1" high, 14-Ga steel hat channels, with a minimum slope of 4% (1/2:12). Lap sealant shall be applied for installed slopes less than 25% (3:12).

4.3. **Anchorage:** Armour PBR 26 Ga. metal roof and wall panels shall be fastened to the roof deck using one row of #12 x 1" HWH self-drilling fasteners with a weather seal washer next to each seam and intermediate rib spaced 12" on center. The same fasteners shall be used at the panel ends on both sides of each seam and intermediate rib. The seams shall be sealed with a strip of 1" wide butyl tape and secured with #12 x 1" HWH self-drilling fasteners with weather seal washers spaced 12" on center. See Table 1 and illustrated in Appendix 1.



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5. Installation

Armour PBR 26 Ga. metal roof and wall panels in new construction applications shall be installed in accordance with the 2020 Florida Building Code - Building, 7th Edition, Section 1507.4, the manufacturer’s published installation instructions and this Certification Report.

Armour PBR 26 Ga. metal roof and wall panels on Metal Based Decking is not applicable in re-roofing applications.

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 PBR 26 Ga. metal roof and wall panels described in this Certification Report has been determined in accordance with:

- ASTM E1592, *Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference*
- FM 4470, Approval Standard for Class 1 Panel Roofs; Section 4.4 *Foot Traffic Resistance*.

As tested & reported by the following independent accredited laboratory:

| Laboratory | Report Ref. |
|------------|--------------------|
| Intertek | J2231.02-450-44-R0 |
| | J3465.02-109-44-R2 |

Note: The FM 4470-2012 standard is equivalent to the FM 4470-2016 standard.



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6.1. Wind Resistance

The allowable design uplift pressures for Armour PBR 26 Ga. metal panels as illustrated 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 Description | Max Design Uplift Pressure |
|--|---|--|----------------------------|
| Over 14-Ga steel hat Channel 4" wide x 1" high | Hat Channel to C15 by 33.9 Steel Channel | | 35 Psf |
| | 1 row of on each flange of Hat Channel Spaced at 8" on Center | #10 x 2" Self-drilling Fastener | |
| | Panel to Hat Channel | | |
| | 1 row next to each seam and intermediate rib at 12" on Center | #12 x 1" HWH Self-drilling fastener with weather seal washer | |
| | Panel Ends and Intermediate Rib | | |
| | 7" – 5" – 7" Spacing and max 12" O.C. | #12 x 1" HWH Self-drilling fastener with weather seal washer | |
| | Seams ¹ | | |
| | Secured at 12" on center | #12 x 1" HWH Self-drilling fasteners with weather seal washers | |

Note 1: Lap Sealant shall be applied for installed slopes less than 25% (3:12).

6.2. Resistance to Foot Traffic

The Armour PBR 26 Ga. metal roof and wall panels were tested per the referenced standard installed using the Anchor Patterns described in Table 1 over W6 x 9 steel purlins spaced at five feet on center. The resultant deflection under load and permanent deflection were within the allowable limits defined by the standard.

7. Conditions of Use

Armour PBR 26 Ga. metal roof and wall panels must be insulated against other materials or metals including non-stainless steel, concrete, lead, copper and treated lumber that contains corrosive materials.

8. Limitations of Use

Armour PBR 26 Ga. metal roof and wall panels are not qualified for use in the High Velocity Hurricane Zone (HVHZ).

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

Roof support framing shall comply with 2020 Florida Building Code - Building, 7th Edition, Chapter 22 for steel, Chapter 23 for wood and Chapter 16 for structural loading.



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9. Licensed Manufacturing Facilities

This Certification Report is applicable only to Armour PBR 26 Ga. metal roof and wall 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 PBR 26 Ga. metal roof and wall 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:

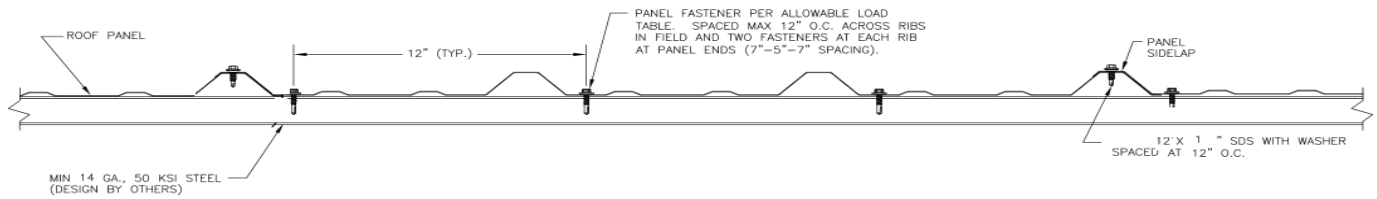


Jon Hill
President

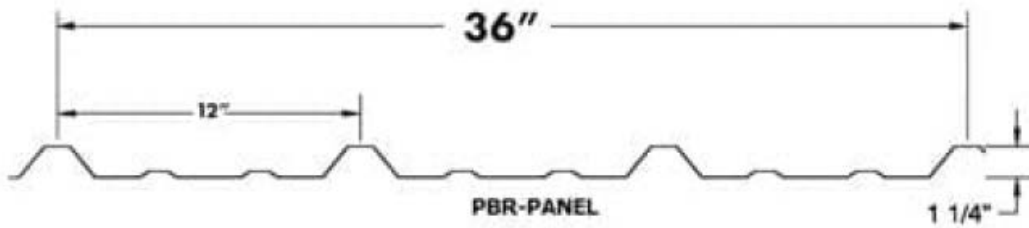
Appendix 1

Note: Lap sealant shall be applied for installed slopes less than 25% (3:12).

Anchorage Detail



Panel Detail



Drawing No. 1
 Panel Profile



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Certificate Revisions

| Rev # | Date | Description |
|-------|------------|---|
| 0 | 3/11/2019 | Initial issuance. |
| 1 | 3/12/2019 | Updated Model name to include metal roof "and wall panels" |
| 2 | 3/19/2019 | Updated Referenced Report to J3465.02-109-44-R2 |
| 3 | 9/3/2019 | Updated ANSI Logo to proper requirements. Updated FL# to correct revision number. Updated signature block reviewer. |
| 4 | 10/12/2020 | Updated to 2020 FBC 7 th Edition. |