

# Technical Information Sheet



## UNA-CLAD™ UC-3

**Item Description**

Standing Seam Panel for Architectural Metal Roofing

### Description

UNA-CLAD UC-3 Roofing Panel is a factory formed double-lock, architectural standing seam metal roof panel that provides a traditional look and utilizes mechanical seaming to enhance the architect’s design needs. The UC-3 roofing panel allows the designer to design or specify various radius roof profiles. The minimum slope requirement for a Red Shield™ Warranty is 3:12. For warranty requirements below 3:12, please contact a Regional Technical Coordinator.

**NOTE:** The UC-3 panel is designed and tested for roofing applications only. Any installation outside of a roofing application is at risk from the contractor and is not the responsibility of Holcim Solutions and Products US, LLC.

### Method of Application

1. A smooth, solid substrate of plywood, OSB, or a rigid insulation board mechanically attached to a steel deck is recommended for the UC-3 metal roof panel.
2. The UC-3 panels must be installed in a sequential order.
3. Application of a Elevate™ approved underlayment prior to panel installation is recommended.
4. Panels must be locked in the field by a mechanical seamer.

**NOTE:** Install assembly according to Elevate Metal Design and Application Guides found on the Elevate website. Follow approved installation details.

### Storage

- UNA-CLAD metal panels should be stored in a well ventilated, dry place where no moisture can contact them. Moisture (From rain, snow, condensation, etc.) trapped between layers of material may cause water stains or white rust, which can affect the service life of the material and will detract for the appearance.
- If outdoor storage cannot be avoided, protect the panels with a ventilated canvas or waterproof paper cover. Do not use plastic, which can cause condensation. Keep the material off the ground in an inclined position with an insulator such as wood.

## Storage Continued

- Storage of end-use materials with protective film applied to the surface should be:
  - Less than six months with masking applied (warehouse storage and outdoor exposure combined).
  - Stored in an enclosed building or holding facility.
  - Wrapped/packageged to prevent exposure to direct UV, water, oils, or other contaminants.
  - Protective film may become brittle with long term UV exposure.
  - Maintained in an environment within a temperature range of 45 to 90 °F (7 to 32 °C) and 20 to 80% relative humidity.

## Precautions

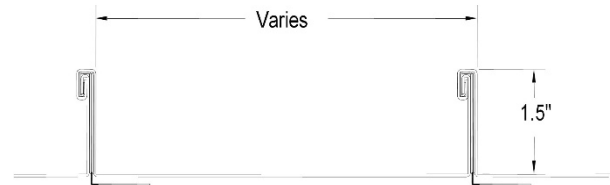
- Oil canning is not a cause for rejection. Heavier gauges, narrower widths, striations, and embossing minimize oil canning.
- Ensure the mechanical seamer is properly adjusted prior to field seaming to reduce the risk of seam damage.
- Sealant for end laps and lap joints shall be non-drying, non-toxic, and non-shrinking with a serviceable temperature of -60 to 212 °F (-51 to 100 °C).
- Quality, long-life butyl sealants work best as a gasket sandwiched between two pieces of metal. Non-acetic cured silicone color matching sealants are recommended when voids must be filled. Sealants are not a substitute for proper assembly and workmanship.
- Exercise caution when lifting, moving, transporting, storing, or handling UNA-CLAD metal to avoid possible physical damage.
- Refer to Safety Data Sheets (SDS) for safety information.
- Immediately remove protective film after installation.

Manufacturing Location: Anoka, MN



Product Data	
Property	Value
Tapered Panels	Yes
Radius Panels	Yes; 8.0' (2,438 mm) Min. Convex Only* (not available in .040 aluminum)
Stiffening Ribs	Optional
Striations	Optional
Sealant	Optional In-Seam, Thermally Applied
Standard Panel Surface	Smooth
Optional Panel Surface	Stucco Embossed 26 ga (0.48mm), 24 ga (0.64 mm) & 22 ga (0.64 mm) Steel 0.032" (0.81 mm) & 0.040" (1.02 mm) Aluminum
Clip	UC-3 Stainless Steel Expansion Clip, UC-3 & UC-3 Fixed Clip

Product Size	
Property	Value
Panel Width	8" (203.2 mm) – 20" (508 mm)
Optimal Panel Width	12" (304.8 mm) & 20" (508 mm)
Seam Height	1.5" (38.1 mm)
Minimum Panel Length	36" (914.4 mm)
Maximum Panel Length	600" (15.24 m)



Technical Information	
Property	Value
Uplift Resistance	UL 580 Class 90
Air Infiltration	ASTM E 283 & E 1680
Structural Performance	ASTM E 330 & E 1592
Water Penetration	ASTM E 331, E 1646-95 & E2140
Fire Rating	UL Class A Rated Assemblies, UL 263, and UL 790
Hail Impact Rating	Class 4, UL 2218
Miami-Dade County & Florida Building Code	Approved



**NOTE:** Testing is not applicable for all combinations of substrates, materials, and dimensions. All construction assemblies must be installed in accordance with the tested assembly. Please refer to the Metal Tested Assembly Guide on the Elevate website for tested assemblies and code listings.

Please contact your Regional Technical Coordinator for warranty requirements and additional information.

Typical Properties		
Material and Thickness	Metal Specification	Available Finishes
<u>Aluminum</u> 0.032" (0.81 mm) 0.040" (1.02 mm)	Base Metal: Aluminum Minimum Yield: 21 KSI (145 MPa) Thermal Expansion: $12.6 \times 10^{-6}$ in/in/ °F (22.2 m/m.K x $10^{-6}$ ) Mod. Of Elasticity: $10.0 \times 10^3$ x KSI (68.9 MPa)	Anodized Kynar 500®/Hylar 5000® Unpainted/Mill Finish
<u>Galvanized Steel</u> 26 ga (0.48 mm) 24 ga (0.64 mm) 22 ga (0.79 mm)	Base Metal: AISI-G90 Galvanized steel Minimum Yield: 33 to 45 KSI (227 to 310 MPa) Thermal Expansion: $06.7 \times 10^{-6}$ in/in/ °F (13.9 m/m.K x $10^{-6}$ ) Mod. Of Elasticity: $29.0 \times 10^6$ x KSI (200 GPa)	Kynar 500®/Hylar 5000® Unpainted G90
<u>Galvalume®/Zincalume® Steel</u> 26 ga (0.48 mm) 24 ga (0.64 mm) 22 ga (0.79 mm)	Base Metal: AZ-50 Hot Dipped Galvalume Minimum Yield: 50 KSI (345 MPa) Thermal Expansion: $06.7 \times 10^{-6}$ in/in/ °F (13.9 m/m.K x $10^{-6}$ ) Mod. Of Elasticity: $29.0 \times 10^6$ x KSI (200 GPa)	Zincalume® Plus – Clear Acrylic Coated Kynar 500®/Hylar 5000®
<u>Copper</u> 16 oz (0.56 mm) 20 oz (0.69 mm)	AGSC minimum copper content of 99.9% copper, silver counting as copper, cold rolled from ingots of 122 alloy. Thermal Expansion: $9.3 \times 10^{-6}$ in/in/ °F (16.5 m/m.K x $10^{-6}$ ) AGSC copper meets and/ or exceeds ASTM B370 specification.	Natural

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Hylar is a registered trademark of Solvay.

Galvalume is a registered trademark of BIEC International Inc.

Zincalume is a registered trademark of Bluescope Ltd.

**NOTE:** For standard color selection, consult the current UNA-CLAD Color Selection Guide. Custom color services are available on request. Consult the current base metal Sheet & Coil TIS for additional information on the base metal and coating. Not all materials and thicknesses are available from all locations.

Please contact Holcim Technical Services at 800-428-4511 for further information.

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