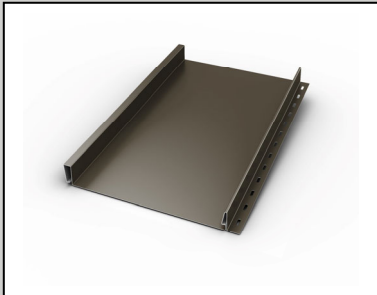


# Technical Information Sheet



## UNA-CLAD™ UC-4

### Item Description

Standing Seam Panel for Architectural Metal Roofing

## Description

UNA-CLAD UC-4 Roofing Panel is a patented self-locking, architectural standing seam metal roof panel that eliminates the need for clips. The 1½" (38.1 mm) high panel seams snap together for easy installation. No mechanical seaming tools or clips required. An optional thermally-applied pre-assembly in-seam sealant is available. 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-4 panel is designed and tested for roofing applications only. Any installation outside of a roofing application is at the risk of 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-4 metal roof panel.
2. The UC-4 panels must be installed in a sequential order.
3. Application of an Elevate™ approved underlayment prior to panel installation is recommended.
4. Use Elevate fasteners that contain a nylon washer to allow for thermal movement and to minimize oil canning.

**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.

## Storage Continued

- 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 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/packaged 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

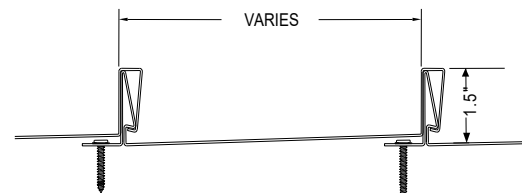
- Oil canning is not a cause for rejection. Heavier gauges, narrower widths, striations, and embossing minimize oil canning.
- Sealant for end laps and lap joints shall be non-drying, non-toxic, and non-shrinking with a serviceable temperature of -60 to 212 °F (-51 to 100 °C).
- Quality, long-life butyl 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



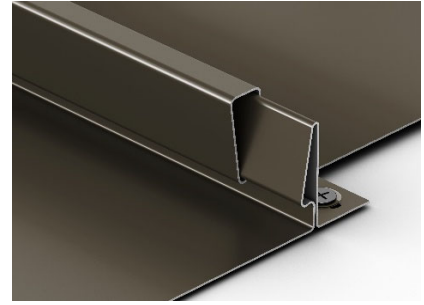
Product Data	
Property	Value
Tapered Panels	No
Radius Panels	No
Stiffening Ribs	Optional
Striations	Optional
Sealant	Optional In-Seam, Thermally Applied
Standard Panel Surface	Smooth
Optional Panel Surface	Stucco Embossed 26 ga (0.48mm), 24 ga (0.64 mm) & 22 ga (0.64 mm) Steel 0.032" (0.81 mm) & 0.040" (1.02 mm) Aluminum
Clip	No Clip Required

Product Size	
Property	Value
Panel Width	9.75" (247.7 mm) – 24" (609.6 mm)
Optimal Panel Width	9.75" (247.7 mm) & 17.75" (450.8 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
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® 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)	Zinalume® 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

**NOTE:** For standard color selection, consult the current UNA-CLAD Color Selection Guide. Custom color services are available upon 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.

This sheet is meant to highlight Elevate products and specifications and is subject to change without notice. Holcim takes responsibility for furnishing quality materials that meet published Elevate product specifications or other technical documents, subject to normal manufacturing tolerances. Neither Holcim nor its representatives practice architecture. Holcim offers no opinion on and expressly refuses any responsibility for the soundness of any structure. Holcim accepts no liability for structural failure or resultant damages. Consult a competent structural engineer prior to installation if the structural soundness or structural ability to properly support a planned installation is in question. No Holcim representative is authorized to vary this disclaimer.