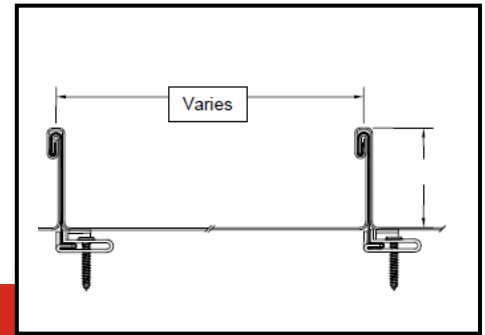


## TECHNICAL INFORMATION SHEET

### UNA-CLAD™ UC-6 HD

#### Item Description

Standing Seam Panel for Architectural Metal Roofing



### Product Information

#### Description:

Firestone UNA-CLAD UC-6 HD Double-Lock Standing Seam roofing panel utilizes all of the proven technology of the standard UC-6 profile; Pittsburgh Locking, the floating action of a concealed clip, a virtually leak proof roof with exceptional wind uplift ratings. An optional thermally-applied pre-assembly in-seam sealant is available. The minimum slope requirement for a Firestone Red Shield™ Warranty is 3:12.

**NOTE:** For warranty requirements below 3:12, please contact Building System Advisor.

#### 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 Firestone UC-6HD metal roof panel.
2. Firestone UC-6 HD panels must be installed in a sequential order.
3. Application of a Firestone approved underlayment prior to panel installation is recommended when installed over a solid substrate.
4. Panels must be locked in the field by a mechanical seamer.

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

#### Storage:

- Firestone 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. Protective film may degrade or become brittle with long term exposure to direct sunlight.

#### 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.
- Firestone recommends a minimum bend radius of 2T. Anything less than a 2T bend radius can cause crazing to the material.
- 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 Firestone metal to avoid possible physical damage.
- Refer to Safety Data Sheets (SDS) for safety information.
- Immediately remove protective film after installation.

## TECHNICAL INFORMATION SHEET

### UNA-CLAD™ UC-6 HD

**Manufacturing Location:**  
Anoka, MN



#### Product Data

Tapered Panels	Yes
Radius Panels	No
Stiffening Ribs	Optional
Striations	Optional
Sealant	Optional In-Seam, Thermally Applied
Standard Panel Surface	Smooth
Optional Panel Surface	Stucco Embossed
Clip	UC-6 Low-Float, UC-6 Super Clip & UC-6 Fixed Clip

**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 Code Approval Guide on the Firestone website for tested assemblies and code listings.

Please contact your Building Systems Advisor for warranty requirements and additional information.

#### Product Size

Panel Width	12" (305 mm) – 22" (559 mm)
Optimal Panel Width	18" (457 mm)
Seam Height	2" (51 mm)
Minimum Panel Length	36" (914 mm)
Maximum Panel Length	600" (15 m)

#### Technical Information

Uplift Resistance	UL 580 Class 90
Structural Performance	ASTM 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

# TECHNICAL INFORMATION SHEET

## UNA-CLAD™ UC-6 HD

### Typical Properties

Material and Thickness	Metal Specification	Available Finishes
<b>Aluminum</b> 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 ( $22.2 \text{ m/m.K} \times 10^{-6}$ ) Mod. Of Elasticity: $10.0 \times 10^3$ x KSI (68.9 MPa)	Anodized Kynar 500®/Hylar 5000® Unpainted/Mill Finish
<b>Galvanized Steel</b> 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 ( $13.9 \text{ m/m.K} \times 10^{-6}$ ) Mod. Of Elasticity: $29.0 \times 10^6$ x KSI (200 GPa)	Kynar 500®/Hylar 5000® Unpainted G90
<b>Galvalume® Steel</b> 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 ( $13.9 \text{ m/m.K} \times 10^{-6}$ ) Mod. Of Elasticity: $29.0 \times 10^6$ x KSI (200 GPa)	Acrylume® – Clear Acrylic Coated
<b>Copper</b> 16 ga (0.56 mm) 20 ga (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 ( $16.5 \text{ m/m.K} \times 10^{-6}$ ) AGSC copper meets and/ or exceeds ASTM B370 specification.	Natural
<b>Zinc</b> 0.028" (0.7 mm) 0.032" (0.8 mm) 0.040" (1.0 mm)	RHEINZINK®: Electrolytic high-grade, 99.9% pure, fine zinc (DIN EN 1179) titanium copper alloy. Certified according to DIN ISO 9001: 1994 Thermal Expansion: $2.2 \text{ mm/m} \times 100\text{K}$ ( $16.5" \times 10^{-6}$ in/in/ °F)	Shiny Pre-weathered Blue-Gray Pre-weathered Graphite Gray

**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 the Firestone Technical Services Department at 1-800-428-4511 for further information.

*This sheet is meant to highlight Firestone products and specifications and is subject to change without notice. Firestone takes responsibility for furnishing quality materials which meet published Firestone product specifications. Neither Firestone nor its representatives practice architecture. Firestone offers no opinion on and expressly disclaims any responsibility for the soundness of any structure. Firestone 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 Firestone representative is authorized to vary this disclaimer.*