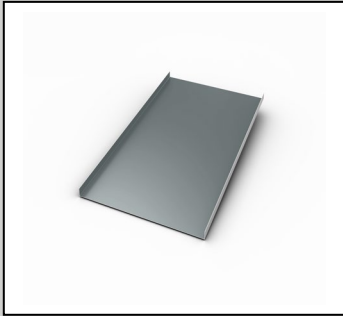


Product Data Sheet



DefendEX™ CapSeam 1000

Metal Paneling

Snap-on Batten Standing Seam Panel for Architectural Metal Roofing

Description

DefendEX™ CapSeam 1000 Roofing Panel (CapSeam 1000) is a factory-formed, snap-on batten, standing seam metal roof panel.

CapSeam 1000 panels offer the appearance of thin-line standing seams and are available in a wide variety of materials and finishes, including Kynar®-coated G90 galvanized steel, aluminum, and copper.

For standard color selection, consult the current *Exceptional Metals Color Chart*. Custom color services are available upon request.

Material only warranty available.

Method of Application

1. A smooth, solid substrate of plywood, OSB, or a rigid insulation board, mechanically fastened to a steel deck, is recommended for CapSeam 1000 panels.
2. CapSeam 1000 panels may be installed in a non-sequential order.
3. Prior to installation, application of an approved underlayment is recommended.

NOTE: Install assembly according to the *Metal Roofing Design Guide* and the *Metal Roofing System Application Guide* found on the [Exceptional Metals website](#). Follow approved installation details.

Storage

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

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° - 212° F (-51° - 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 handling to avoid injury or product damage.
- Refer to Safety Data Sheets (SDS) for safety information, including PPE.
- Immediately remove protective film after installation.**

Manufacturing Location: Anoka, MN



Product Data	
Property	Value
Tapered Panels	Yes
Radius Panels	Yes 5 ft (15.24 m) *
Stiffening Ribs	Optional
Striations	Optional
Sealant	No
Standard Panel Surface	<u>Smooth</u>
Optional Panel Surface	<u>Stucco Embossed</u> : 26 ga (0.48 mm) <u>Steel</u> : 24 ga (0.64 mm) & 22 ga (0.64 mm) <u>Aluminum</u> : 0.032 in. (0.81 mm) & 0.040 in. (1.02 mm)
Clip	CapSeam 1000 Clip

*Concave & Convex: min. R36 in. (914.40 mm)

NOTE: CapSeam 1000 maximum gauge is 0.03-in. (0.81-mm) aluminum and 24-gauge (0.64-mm) steel. If an order is for 22-gauge (0.79-mm) panels, batten will be 24-gauge (0.64-mm) steel. If an order is for 0.040-in. (1.02-mm) aluminum panels, batten will be 0.032-in. (0.81-mm) aluminum.

Product Size	
Property	Value
Panel Width	9.75 - 24 in. (247.70 - 609.60 mm)
Optimal Panel Width	9.75 in. (247.65 mm) & 17.75 in. (450.85 mm)
Seam Height	1.50 in. (38.10 mm)
Minimum Panel Length	36 in. (914.40 mm)
Maximum Panel Length	600 in. (15.24 m)



Technical Information	
Property	Value
Uplift Resistance	UL 580, Class 90
Structural Performance	ASTM E330
Fire Rating	UL 263, UL 790, & UL Class A Rated Assemblies
Hail Impact Rating	UL 2218, Class 4

Typical Properties		
Material and Thickness	Metal Specification	Available Finishes
<u>Aluminum</u> 0.032 in. (0.81 mm) 0.040 in. (1.02 mm)	Base Metal: Aluminum Minimum Yield: 21 KSI (145 MPa) Thermal Expansion: 12.6×10^{-6} in/in/°F (22.68×10^{-6} mm/mm/°C) Modulus of Elasticity: 10.0×10^3 x KSI (68.9 MPa)	Anodized Kynar 500®/Hylar 5000® Unpainted/Mill-Finished
<u>Zincalume®/Galvalume® Steel</u> 26 ga (0.48 mm) 24 ga (0.64 mm) 22 ga (0.79 mm)	Base Metal: AZ-50 Hot-Dipped Zincalume/Galvalume Minimum Yield: 50 KSI (345 MPa) Thermal Expansion: 6.7×10^{-6} in/in/°F (12.06×10^{-6} mm/mm/°C) Modulus of Elasticity: 29.0×10^6 x KSI (200 GPa)	Zincalume Plus/ Galvalume Plus/ Acrylume® - Clear Acrylic Coated Kynar 500/Hylar 5000
<u>AGSC Copper</u> 16 oz (0.56 mm) 20 oz (0.69 mm)	Minimum Content: 99.9% copper, silver counting as copper, cold rolled from ingots of 122 alloy. Thermal Expansion: 9.3×10^{-6} in/in/°F (1.674×10^{-5} mm/mm/°C) Meets and/or exceeds ASTM B370 specification.	Natural

NOTE: Consult the appropriate base metal sheet and coil product data sheet for additional information on the base metal and coating. Not all materials and thicknesses are available from all locations.

Contact EXCEPTIONAL Metals Technical Services at (866) 337-4599 for further information.

This sheet is meant to highlight Exceptional Metals products and specifications and is subject to change without notice. Amrize™ takes responsibility for furnishing quality materials that meet published Exceptional Metals product specifications or other technical documents, subject to normal manufacturing tolerances. Neither Amrize nor its representatives practice architecture. Amrize offers no opinion on and expressly refuses any responsibility for the soundness of any structure. Amrize 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 Amrize representative is authorized to vary this disclaimer.

EXCEPTIONAL Metals is a brand of Amrize Building Envelope LLC.
 "EXCEPTIONAL", "DefendEX", and Amrize are trademarks in the Amrize portfolio. All other trademarks are property of their respective owners.