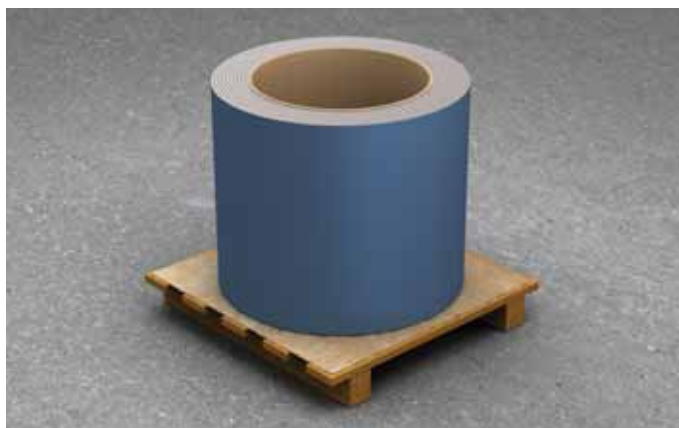


# PVDF Coated Galvalume® Steel and Aluminum Architectural Flat Sheet & Coil



## Overview

Carlisle's PVDF Coated Galvalume Steel and Aluminum Architectural Flat Sheet & Coil is for general sheet metal use in building applications and can be utilized for fascia panels, soffits, gravel stops, copings, and roofing such as flat seam, standing seam, batten seam, and mansards.

## Features and Benefits

- » Steel products are made of Galvalume, an Aluminum/Zinc coated carbon steel and is extra smooth, minimum spangle, tension leveled.
- » Aluminum is made of prime grade aluminum, typically with an alloy of 3003 or 3105 and a temper of H14 or H24.
- » Uses full strength Hylar 5000™/ Kynar 500® (contains a minimum of 70% Hylar/Kynar polyvinylidene fluoride (PVDF) resins) manufacturer by Valspar.
- » Coating system consists of a 1.0 (±0.1) mil total dry film thickness on the topside (0.2 mils to 0.3 mils primer and 0.7 mils to 0.8 mils topcoat).
- » Utilizes 0.5 mil dry film thickness polyester stenciled backer for complete traceability.

## Installation

1. Install in accordance with recognized sheet metal practices and Carlisle's specifications and details.
2. This material can be cut, formed, and fastened using conventional hand tools, sheet metal tools, and power tools.
3. For best results, cutting tools should be kept sharp, clean, and in good working condition.
4. If strippable film is used, all film should be removed from areas of concealed or joined pieces. Remove strippable film immediately after installation.
5. Be aware of the tightness of radius bends. 1/4" radius is recommended when fabricating hemmed components.

*Review Carlisle specifications and details for complete installation information.*

## Testing Data

- » **Humidity Resistance:** No blistering, cracking, peeling, loss of gloss, or softening of the finish after 2,000 hours (HDG, Galvalume) or 3,000 hours (Aluminum) of exposure to 100% humidity at 100°F ± 5°F, per ASTM D2247.
- » **Cleveland Condensing:** No blistering, rusting, or loss of adhesion of the finish after 1,500 hours (Galvalume) or 3,000 hours (Aluminum) of exposure at 120°F, per ASTM D4585.
- » **Water Immersion Resistance:** Samples immersed in distilled water at 100°F per ASTM D870 exhibit no loss of gloss, blistering, cracking, or color change after 500 hours.
- » **Salt Spray Resistance:** Samples diagonally scored and subjected to 5% neutral salt spray for 1,000 hours (HDG, Galvalume) or 3,000 hours (Aluminum), per ASTM B117, then taped 1 hour after removal from the test cabinet with Scotch #610 cellophane tape, exhibit no blistering, no loss of adhesion, and scribe creep no greater than 1/8".
- » **Chemical Resistance:** No significant color change after 24 hours exposure to 10% solutions of hydrochloric and sulfuric acids, per ASTM D1308, Procedure 7.2 (spot test).
- » **Kesternich Test:** No significant color change after 10 cycles in a SO<sub>2</sub> chamber, per ASTM G87.

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- » **Accelerated Weathering:** 5 Hunter Delta E maximum color change, and at least #8 chalk rating after 10,000 hours exposure, per ASTM G151 and G154 using UVA-340 bulbs.
- » **Exterior Weathering:** Florida exposure (45° South), 5 Hunter Delta E maximum color change, per ASTM D2244, and at least #8 chalk rating, per ASTM D4214, Method A, after 20 years real-time exposure.
- » **Abrasion Resistance:** Per ASTM D968, Method A, TRINAR passes 65 +/- 5 liters minimum of falling sand.
- » **Flame Spread Rating:** TRINAR displays a flame spread classification of A (Class 1) when tested in accordance with ASTM E84.
- » **Cross-Hatch Adhesion:** No paint removal with Scotch #610 cellophane tape after cross-scoring with eleven horizontal and eleven vertical lines 1 mm apart, per ASTM D3359.
- » **Impact Resistance:** No visible paint removal with Scotch #610 cellophane tape after direct and reverse impact of 80" pounds, using 5/8" steel ball on a Gardner Impact Tester, per ASTM D2794.
- » **T-Bend Adhesion:** Per ASTM D4145, no loss of adhesion when taped with Scotch #610 cellophane tape and subjected to a 2T-Bend.

## Ratings and Specifications

- » ASTM A792-96 - Standard Specification for Steel Sheet, 50% or 55% Aluminum-Zinc Alloy Coated by a hot dipping process
- » ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate
- » ASTM D2244 - Standard Practice for Calculation of Color Tolerance and Color Differences
- » ASTM D968 - Abrasion Resistance

## Typical Properties and Characteristics

### Film Thickness

Top side finish:

- Primer (dry) = 0.20 – 0.30 mils
- Topcoat (dry) = 0.70 – 0.80 mils

Reverse side finish:

- Primer (dry) = 0.15 – 0.25 mils
- Pigmented backer (dry) = 0.30 – 0.40 mils

- » **Total DFT for System:** 0.90 – 1.10 mils. All measurements per ASTM D5796.
- » **Top Side Color:** Controlled to the Master Standard by an approved Color Difference Meter or Spectrophotometer, and by visual match under daylight and horizon light of a Macbeth Daylight Booth per ASTM D1729.
- » **Specular Gloss:** 10% – 35%. Determined per ASTM D523 at a glossmeter angle of 60° or 85° (low gloss is 10% @ 85°).
- » **Pencil Hardness:** Minimum pencil hardness, per ASTM D3363, is "HB".
- » **Solvent Resistance:** Passes minimum of 100 double rubs of a MEK soaked cloth, per ASTM D5402.

## Typical Properties and Characteristics

Property	Value
Color	Visit <a href="http://www.carlisesyntec.com">www.carlisesyntec.com</a> for a full listing of available colors.
Top Finish	Low to Medium Gloss
Bottom Finish	Polyester with Stencil
Weight	GAUGE: 0.022 1.18 (± 5%) LBS./SF GAUGE: 0.024 .9380 (± 5%) LBS./SF GAUGE: 0.026 .7410 (± 5%) LBS./SF GAUGE: 0.032 .461 (± 5%) LBS./SF GAUGE: 0.040 .576 (± 5%) LBS./SF GAUGE: 0.050 .716 (± 5%) LBS./SF GAUGE: 0.063 .920 (± 5%) LBS./SF
Dimensions	GAUGE: 0.022 Master Coil: 48.375"* GAUGE: 0.024 Master Coil: 40.375" / 44.375" / 48.375"* GAUGE: 0.026 Master Coil: 48.375"* GAUGE: 0.032 Master Coil: 40.500" and 48.000"* GAUGE: 0.040 Master Coil: 48.000"* GAUGE: 0.050 Master Coil: 48.000"* GAUGE: 0.063 Master Coil: 48.000"*
Sheet Lengths	Standard: Coil width x 120.000" Custom lengths are available up to 144"
Sheet Widths	48.375" - Steel 48.00" - Aluminum

\*All materials may not be available in all colors, gauges, or widths. Contact Carlisle SynTec Systems for additional information.

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