

Paint Finish Information

Kynar Colors

Liberty

RIGHT FOR SO MANY REASONS®

KYNAR FINISH on Hot Dipped Galvanized & Galvalume® Panels

This paint system combines ceramic pigmentation with polyvinylidene fluoride for superior, long-lasting performance. PVDF finishes are respected for their durability, resistance and color retention. Our Kynar finishes are warranted for up to 30 years.

70% PVDF finishes meet both Kynar 500 and Hylar 5000 specifications. Kynar 500® is a registered trademark of Arkema. Hylar 5000® is a registered trademark of Solvay Solexis. Galvalume® is a registered trademark of BIEC International, Inc.

Note: All panels formed from light gauge metal may exhibit waviness, also known as "Oil Canning," commonly occurring in, but not restricted to, flat portions of a panel. This inherent characteristic is not a defect of material and is not cause for rejection.

Kynar paint finishes are formulated to meet owners and specifiers needs for "Cool Roof" applications including LEED certified and Title 24 projects. Please refer to the information chart for Solar Reflectivity Values, Emissivity ratings and calculated Solar Reflectivity Index. Low slope values apply to roof slopes 2:12 or lower; Steep slope applies to roof pitches greater than 2:12.

CHARACTERISTICS/TEST METHOD	KYNAR
Dry Film Thickness ASTM ¹ D-1400, D-1005, D-1438 (NCCA ² II-13, 14, 15)	0.2-0.25 mil primer ³ , 0.7-0.8 mil top coat
Specular Gloss (60) ASTM D-523 10-15 ⁴	
Pencil Hardness ASTM C-3363 (NCCA II-12) Eagle Turquoise Pencil	HB-H
Flexibility: T-Bend NCCA II-9 (No cracking or tape removal of film) Mandrel ASTM D-522 (180° bend around 1/8" mandrel)	2T ⁵ No cracking
Adhesion ASTM D-3359 (NCCA II-5) Reverse Impact Cross Hatch	No adhesion loss
Reverse Impact ASTM D-2749 (NCCA II-6) Impact in. per lb. = 2000 X metal thickness for steel	No cracking or adhesion loss ⁵
Abrasion Resistance Falling Sand ASTM D-968 Liters to expose 5/32" of substrate transit Based on topside to backside contact in transit	65 ± 15 l/mil of film Acceptable
Mortar Resistance AAMA ⁶ 621.02 – 24 Hour Pat Test	No effect
Detergent Resistance ASTM D-2248 – 3% Detergent, 100°F, 72 hrs.	No effect
Acid Pollutants Resistance ASTM D-1308, Proc. 7.2 10% Muriatic Acid (15 min.) 20% Sulfuric Acid (24 hrs.) AAMA 621.02 Test 7.7 3.1 – 70% Nitric Acid Vapors (30 min.) Kesternich SO ₂ Cyclic Test (2 liters)	No effect No effect < 5 units color change ⁷ , 10 cycles ⁸
Alkali Resistance ASTM D-1308 10%, 25% Sodium Hydroxide (1 hr.)	No effect
Salt Spray Resistance ASTM B-117 – 5% Salt Fog @ 95°F	1000 Hours ⁹
Humidity Resistance ASTM D-2247	2000 Hours ¹⁰ (100% Relative Humidity @ 95°F)
Weatherometer Test ASTM G23 Color Change ASTM D-2244 Chalking Resistance ASTM D-4214	2000 Hours < 2 units change ⁷ Maximum #8
Exterior Weathering Florida Exposure ASTM D-2244 Color 5 years @ 45°S ASTM D-4214 Chalk AAMA 621.02 Film Erosion	Meets or exceeds MCA Premium guidelines Meets or exceeds MCA Premium guidelines Less than 10% film loss

1. AMERICAN SOCIETY FOR TESTING AND MATERIALS.
2. NATIONAL COIL COATERS ASSOCIATION.
3. HIGHER FILM KYNAR COATINGS AND PERFORMANCE DATA AVAILABLE UPON REQUEST.
4. HIGHER AND LOWER GLOSSES AVAILABLE UPON REQUEST.
5. FRACTURING OF SUBSTRATE MAY RUPTURE FILM.
6. AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION.
7. HUNTER ΔE COLOR DIFFERENCE.
8. NO OBJECTIONABLE COLOR CHANGE
9. LESS THAN 1/16" CREEP FROM SCRIBE.
10. NO BLISTERS.

COOL ROOF INFORMATION — Consult specifier or agencies to meet specific requirements

Liberty Solar Reflective Analysis as of August 2007 ASTM - E-903, C-1549, C-1371, E-1980				LEED 2.2 Low Slope	LEED 2.2 Steep Slope	Energy Star Low Slope	Energy Star Steep Slope
LIBERTY'S COLOR FINISH NAME	Results SRV	Radiative Emissivity	Results SRI*	Minimum 78 SRI	Minimum 29 SRI	Minimum .65 SRV	Minimum .25 SRV
Cool Regal White	.7220	0.86	88	YES	YES	YES	YES
Arctic White	.6410	0.87	77	NO	YES	NO	YES
Egyptian White	.6087	0.84	71	NO	YES	NO	YES
Classic Beige	.5310	0.86	61	NO	YES	NO	YES
Cool Sierra Tan	.4910	0.86	56	NO	YES	NO	YES
Cool Zinc Gray	.3860	0.85	41	NO	YES	NO	YES
Terra Cotta	.3550	0.86	38	NO	YES	NO	YES
Cool Colonial Red	.3010	0.85	30	NO	YES	NO	YES
Forest Green	.2950	0.84	29	NO	YES	NO	YES
Regal Blue	.2680	0.85	26	NO	NO	NO	YES
Tahoe Blue	.2894	0.85	25	NO	NO	NO	YES
Leaf Green	.2552	0.84	23	NO	NO	NO	YES
Matte Black (Trim Only)	.2540	0.83	23	NO	NO	NO	YES
Patrician Bronze	.2510	0.84	23	NO	NO	NO	YES
Unpainted Galvalume	.6800	0.10	56	NO	YES	NO	YES

* Solar Reflectivity Index includes Solar Reflectivity Values and Emissivity calculations. Values are for initial installation.



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