

KIRBY-COOL PVDF Cool Coatings



PVDF coatings feature vivid, fade-resistant color, incredible durability and environmentally friendly "cool" technology originally developed for stealth aircraft in the U.S. military.



Regal White IR .72 SRI 88



Reflective White IR .61 SRI 72



Warm White IR .62 SRI 73



Pearl Gray IR .46 SRI 50



Light Stone IR .54 SRI 62



Taupe Sand IR .52 SRI 59



Surrey Beige IR .48 SRI 53



Slate Gray IR .36 SRI 37



Dark Bronze IR .31 SRI 32



Terra Cotta IR .35 SRI 35



Evergreen IR .31 SRI 31



Royal Blue IR .30 SRI 31



Brite Red IR .36 SRI 39

IR = Initial Reflectance • SRI = Solar Reflectance Index

	Regal White (RW)	Reflective White (RF)	Warm White (WA)	Pearl Gray (PG)	Light Stone (LS)	Taupe Sand (TS)	Surrey Beige (SB)	Slate Gray (SG)	Dark Bronze (DB)	Terra Cotta (TC)	Evergreen (EG)	Royal Blue (RE)	Brite Red (BR)
KirbyWall Panel	●	●	●	●	●	●	●	●	●	●	●	●	●
KRP Wall Panel	●	●	●	●	●	●	●	●	●	●	●	●	●
KirbyRib II Wall Panel	●	●	●	●	●	●	●	●	●	●	●	●	●
KirbyRib II Roof Panel	●	●	●	●	●	●	●	●	●	●	●	●	●
KLS 2100 Roof Panel	●	●	□	□	□	□	□	□	●	□	●	□	□
KLM 2100 Roof Panel	●	●	□	□	□	□	□	□	●	□	●	□	□
Roof-Lok Panel	□	□	□	□	□	□	□	□	●	●	●	□	□
Roof-Lok Plus Panel	□	□	□	□	□	□	□	□	●	●	●	□	□
Trim	●	●	●	●	●	●	●	●	●	●	●	●	●

Available
 Non Stock Colors. Note: These colors may require extended delivery times.

These premium coatings have an optional 35-year paint finish warranty.
Contact us for information.

Reflectance, Thermal Emittance and Solar Reflectance Index (SRI)

Solar Reflectance

To be considered "cool," products must have a Solar Reflectance of at least .25. Solar Reflectance is the fraction of the total solar energy that is reflected away from a surface.

Thermal Emittance

Thermal Emittance is the measure of a panel's ability to release heat that it has absorbed.

Solar Reflectance Index (SRI)

Put Solar Reflectance and Thermal Emittance together and you get the Solar Reflectance Index (SRI). SRI is calculated by using the values of solar reflectance, thermal emittance and a medium wind coefficient. The higher the SRI value, the lower its surface temperature and its heat gain into the building. Cool metal roofs coated with the COOL-pigmented PVDF resin achieve an SRI of 31-88, depending on the color.

Conventional roof surfaces have low reflectance (0.05 to 0.25) and high thermal emittance (typically over .85). Roof panels with both high reflectance and high emittance can reduce the surface temperature by as much as 30-50% based on color and geographic location, which will result in a reduced heat gain to the building, therefore reducing energy demand.

Kirby-COOL Panel Colors

Color	Initial Solar Reflectance (IR)	Initial Thermal Emittance (IE)	Solar Reflectance Index (SRI)
Regal White	.72	0.85	88
Reflective White	.61	0.85	72
Warm White	.62	0.84	73
Light Stone	.54	0.85	62
Taupe Sand	.52	0.83	59
Surrey Beige	.48	0.83	53
Pearl Gray	.46	0.83	50
Brite Red	.36	0.86	39
Slate Gray	.36	0.83	37
Terra Cotta	.35	0.84	35
Evergreen	.31	0.85	31
Dark Bronze	.31	0.87	32
Royal Blue	.30	0.86	31
Initial	.77	0.08	72
3 Years	.51	0.19	26

Bare Aluminum Zinc Coated

Cool science isn't just a meaningless marketing term. It's a technology that is literally revolutionizing the building industry. Combating urban heat islands and high-energy consumption will require innovative products that meet or exceed even the most stringent industry requirements. Our Kirby-COOL panel is that type of product.

Just think, the more energy costs rise, the more money you save with Kirby-COOL.

Film Properties	Test Method	Performance
Dry Film Thickness	ASTM D5796 Primer ASTM D1005	0.3 mils minimum Topcoat 1.0 mil system (+/- .05) Backer 0.5 mil system (+/- .05)
Specular Gloss	ASTM D523	Low gloss, 5-12% @ 60°
Dry Film Hardness	ASTM D3363	HB minimum
Film Adhesion - Dry, wet, boiling water	ASTM 3359	Excellent, no removal
Formability	ASTM D4145	2 T Bend - no removal
Abrasion Resistance - Falling Sand - Gardner Scratch - Taber Abrasion	ASTM D968 ASTM D2197 ASTM D4060	Exceeds 65 liters/mil 250-300 grams load CS 10 wheels/20mg loss/100 cycles
Chemical & Detergent Resistance	ASTM D1308	Excellent - no attack
Salt Spray Resistance	ASTM B117	Passes 1,000 hours, Galvalume
Humidity Resistance	ASTM D2247	Passes 1,000 hours, HDG/Galvalume
South Florida Weathering - Color Retention - Chalk Resistance	D2244 D4214	<5dE change after 35 years >8 chalk rating

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