SP Cool Coatings

This cool silicone-polyester paint system utilizes a two-coat system that offers superior quality and durability.



a NUCOR® company

Polar White †	IR .67 SRI 81	Sandstone †	IR .59 SRI 69	Fox Gray †	IR .51 SRI 58
Sagebrush Tan †	IR .51 SRI 59	Brick Red †	IR .38 SRI 40	Aztec Blue †	IR .27 SRI 26
Forest Green †	IR .27 SRI 25	Burnished Slate †	IR .32 SRI 32	Galvalume *⁺	IR .77 SRI 72

^{*}Non-Stock Color: Extended lead times may apply. *The Galvalume coating process is likely to result in variances in spangle (size, number, and reflection) from coil to coil which may result in noticeable shade variations. Galvalume is also subject to variable weathering and may appear to have different shades due to weathering characteristics. These shade variations are not cause for rejection. † ENERGY STAR® Qualified Color. All SP colors have a 25-year finish warranty. Colors shown closely approximate actual coating colors. These colors utilize Cool Coating Technology. The term "TBS" on the Order Document refers to "To Be Selected" from standard SP colors as shown on this chart.



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Product Specifications



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Solar 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 consequently, the heat gain into the building. Metal roofs coated with SP Cool Coatings achieve an SRI of 25-81, 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 the energy demand.

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SP COOL PANEL COLORS

SP Cool Color	Initial Solar Reflectance (IR)	Initial Thermal Emittance	Solar Reflectance Index (SRI)
Polar White	.67	0.83	81
Sandstone	.59	0.84	69
Fox Gray	.51	0.85	58
Sagebrush Tan	.51	0.85	59
Brick Red	.38	0.85	40
Aztec Blue	.27	0.85	26
Forest Green	.27	0.83	25
Burnished Slate	.32	0.85	32
Galvalume®	.77	0.08	72

SP COOL TECHNICAL INFORMATION

Test	Test Methods	Performance	
Dry Film Thickness	ASTM D1005	0.15 - 0.30 mil primer 0.70 - 0.90 mil topcoat	
Gloss	ASTM D523 @ 60°	10 - 80+	
Solar Reflectance	ASTM E903, ASTM E1918 Using portable reflectometer	0.25 (25%) min.	
Emissivity	ASTM C1371, ASTM E408	0.80 (80%) min.	
Pencil Hardness	ASTM D3363	F min.	
Flexibility	T-Bend, ASTM D4145	2 T-bend, No pick off	
Adhesion	ASTM D3359	1.5 x metal thickness, No adhesion loss	
Reverse Impact	ASTM D2794	2 x gauge or 80 lbs.	
Abrasion, Falling Sand	ASTM D968	25 - 40 I/mil	
Mortar Resistance	ASTM C267	No effect	
Detergent Resistance	ASTM D2248 3% detergent @ 100°F (72 hrs.)	No effect	
Acid Resistance	ASTM D1308 10% muriatic acid - 15 min. 20% sulfuric acid - 24 hrs.	No effect No effect	
Acid Rain Test	Kesternich SO2, DIN 50018	10 cycles min. No objectionable color change	
Alkali Resistance	ASTM D1308 10%, 20% NaOH, 1 hr.	No effect	
Salt Spray Resistance	ASTM B117 5% salt fog @ 95°F	Passes 1000 hrs.	
Humidity Resistance	ASTM D714, ASTM D2247 100% relative humidity @ 95°F	Passes 1000 hrs. No blisters, cracks or peeling	
Exterior Exposure	ASTM D2244, ASTM D4214 10 yrs. @ 45°F, South Florida	Max. 5 fade Max. 8 chalk	