SP Cool Colors

Silicone-modified polyester (SMP), also known as silicone-protected or siliconized polyester, is recognized for its superior hardness and durability.

CBC STEEL BUILDINGS a NUCOR brand

Polar White (PW)

Sandstone (SS)

Fox Gray (FG)

Sagebrush Tan (SA)

Brick Red (BD)

Aztec Blue (AB)

Forest Green (FO)

Burnished Slate (BS)

Galvalume ★ (GM)

★ Non-SP. 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. The term "TBS" on the Order Document refers to "To Be Selected" from standard SP cool colors as shown on this chart.

SP Cool Colors

Product Specifications

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 Colors 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.

GALVALUME® is a registered trademark of BIEC International Inc., and some of its licensed producers. Galvalume is the substrate to which paint is factory-applied. This coating is what determines the roofing product's reflective properties.

All information contained within is subject to change without notice. Please contact your sales representative to ensure most current information.

**NOTE: CRRC values are based on a color group (family) not a NBG specific color. The Cool Colors Spec Sheet available by scanning the QR code above has specific values provided by the paint manufacturer.*

SP COOL PANEL COLORS & RATINGS

Scan codes below for the most current Cool (reflective) Roof ratings.*

Cool Coatings Spec Sheet

Cool Roof Rating Council Directory

SP COOL TECHNICAL INFORMATION

SP Performance Testing		
Industry Specifications Compliance	AAMA 2604-17A Requirements	Voluntary Specification, Performance Requirements and Test Procedures for High-Performing Organic Coatings on Architectural Aluminum Extrusions and Panels
Substrates	Pretreated substrates: Galvalume®, Hot-Dipped Galvanized (HDG) steel & Aluminum.	
Dry Film Thickness	ASTM D1005	0.15 - 0.30 mil primer; 0.70 - 0.90 mil topcoat
Gloss	ASTM D523 @ 60°	10 - 80+

Physical Testing	Test Methods	Test Result
Solar Reflectance	ASTM E903, ASTM E1918 Using portable reflectometer	0.25 (25%) min.
Emissivity	ASTM C1371, ASTM E408	0.80 (80%) minutes
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 1/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
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 (Color) ASTM D4214 (Caulking) 10 yrs. @ 45°F, South Florida	Max. Δ5 fade Max. 8 chalk
Surface Burning Characteristics	ASTM E84	Flame Spread Index: Class A Smoke Developed Index: Class A