

# Insulated Metal Panels **NUCOR**<sup>®</sup> SP Cool Coatings

**NUCOR**<sup>®</sup>  
BUILDINGS GROUP



Metl-Span's insulated metal panels are finished with cool coating systems that features vivid, fade-resistant color, incredible durability and environmentally friendly cool technology. Our cool silicone-polyester (SP) paint system utilizes a two-coat process that offers superior quality and durability.

## Exterior Colors (SP)

*IR: Initial Reflectance SRI: Solar Reflectance Index*



**Polar White**

IR .60 SRI 71



**Sandstone**

IR .54 SRI 63



**Fox Gray**

IR .46 SRI 52



**Sagebrush Tan**

IR .46 SRI 52



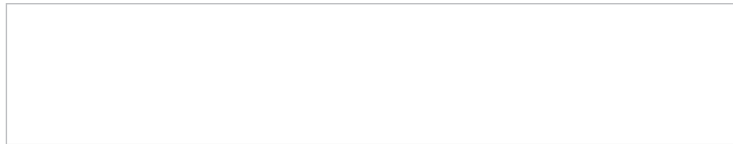
**Brick Red**

IR .31 SRI 31



**Aztec Blue**

IR .29 SRI 29



**Igloo White\*** INTERIOR COLOR (POLYESTER)

★ When using field applied coatings always order Igloo White Polyester for the exterior coating. Colors shown closely approximate actual coating colors. The term "TBK" on the Order Document refers to "To Be Selected" from standard colors as shown on this chart.

# Insulated Metal Panels SP Cool Coatings



## Product Specifications

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

### 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.

### WARRANTIES



At NBG, we proudly stand behind every product we make. That’s why we offer a 25-year warranty on our SP insulated metal panels. It offers protection against:

**Fading | Chipping | Peeling | And more**

## SP COOL PANEL COLORS

SP Cool Color	Initial Solar Reflectance (IR)	Initial Thermal Emittance	Solar Reflectance Index (SRI)
Polar White	.60	0.87	71
Sandstone	.54	0.86	63
Fox Gray	.46	0.87	52
Sagebrush Tan	.46	0.87	52
Brick Red	.31	0.86	31
Aztec Blue	.29	0.86	29

## 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 and Aluminum.	
Dry Film Thickness	0.2 - 0.3 mil primer / 0.7 - 0.8 mil topcoat	

Physical Testing	Test Methods <sup>2</sup>	Test Result
Falling Sand Abrasion	ASTM D 968	35 ± 10 liters
Film Adhesion	ASTM D 3359	No removal of film under tape in the cross-hatched area. (Dry, Wet, Boiling Water)
Surface Burning Characteristics	ASTM E 84	Flame Spread Index: Class A. Smoke Developed Index: Class A
Graffiti Resistance	ASTM D 6578/D 6578M	Meets and exceeds
Humidity Resistance	ASTM D2247 100% RH @ 100°F for 2000 hrs.	No field blisters
Impact Resistance (Direct)	ASTM D 2794	3x metal thickness inch-pounds, no loss of adhesion
Pencil Hardness	ASTM D 3363	HB to 2H
Salt Spray Resistance	ASTM B 117: 1,000 hrs.	Creep from scribe ≤ 1/8" (3mm), none or few #8 blisters.
Specular Gloss 60°	ASTM D 523	20-80
T-Bends	ASTM D 4145 <sup>3</sup>	2T-4T, no loss of adhesion.

South Florida Testing	Test Methods	Test Result
Color	ASTM D 2244	>5Δ Hunter units @ 90° vertical angle and 6Δ E non-vertical @ 20 yrs.
Chalk	ASTM D 4214	No less than 8 at 90° angle; 7 at non-vertical angle @ 20 years.
Film Integrity	ASTM G7	25 yrs. no blisters, peeling or cracking

<sup>1</sup>American Architectural Manufacturers Association. <sup>2</sup>American Society for Testing and Materials. <sup>3</sup>WeatherXL is not designed to bridge cracks in the substrate. WeatherXL coatings will generally meet the requirements for most post-painted fabrication processes. However, variations in metal quality, thickness or cleaning/pre-treatment applications can lead to diminished flexibility.