

PRODUCT SPECIFICATIONS

Solar Reflectance, Thermal Emittance and Solar Reflective 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 Reflective Index (SRI)

Put Solar Reflectance and Thermal Emittance together and you get the Solar Reflective 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. Cool metal roofs coated with the COOL-pigmented silicone-polyester resin achieve an SRI of 24-79, depending on the color.

SP-COOL PANEL COLORS

SP-COOL COLOR	INITIAL SOLAR REFLECTANCE (IR)	INITIAL THERMAL EMITTANCE (IE)	SOLAR REFLECTIVE INDEX (SRI)
Polar White	.66	0.86	79
Sandstone	.59	0.87	70
Sagebrush Tan	.47	0.85	53
Fox Gray	.43	0.85	47
Burnished Slate	.31	0.86	32
Brick Red	.38	0.83	40
Hunter Green	.26	0.86	25
Aztec Blue	.25	0.86	24
Bare Aluminum Zinc Coated	.77	0.08	72

SP-COOL TECHNICAL INFORMATION

FILM PROPERTIES	TEST METHODS & DESCRIPTIONS	PERFORMANCE
Accelerated Weathering	ASTM1 G-153 Weatherometer ASTM D-4214 Chalk Resistance ASTM 4587 UV Exposure	Passes 3,000 hours #8 Chalk rating, passes Passes 1,000 hours
Exterior Weathering Florida Exposure	ASTM D-2244 Color	< 5 units color change
Mortar Resistance	AAMA8 605.2 24 Hour Pat Test	No effect
Detergent Resistance	ASTM D-2248 3% Detergent, 100°F, 72 Hours	No effect
Resistance to Acid Pollutants	Per ASTM D-1308, Proc. 7.2 10% Muriatic Acid (15 minutes) 20% Sulfuric Acid (24 hours) AAMA 605.2 Text 7.7, 3.1 70% Nitric Acid Vapors (30 minutes)	49.0% No effect No effect < 5 units color change
Alkali Resistance	Kesternich, SO2 Cyclic Test (2 liters) ASTM D-1308 10%, 20% Sodium Hydroxide (1 hour)	10 cycles no effect No effect
Salt Fog	ASTM B-117 5% Salt Fog @ 95°F	Passes 1,000 hours
Humidity	ASTM D-2247 100% Relative Humidity @ 100°F	Passes 1,000 hours
Condensing Humidity Cabinet - CCH Testing	240 hours @ 140°F per ASTM D-4585-86 and NCCA Bulletin III-6	Passes 1,000 hours



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