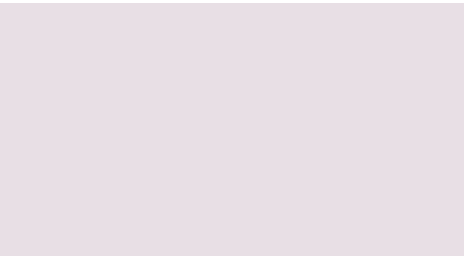


PVDF Cool Colors

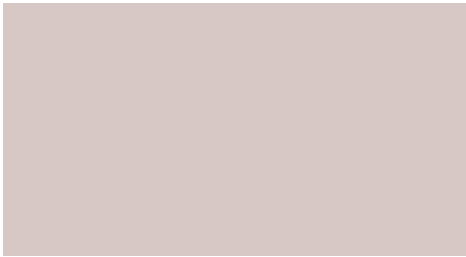
PVDF (Polyvinylidene Fluoride) utilizes a two-coat system featuring fade resistant color, incredible durability, and environmentally-friendly “cool” technology.



Regal White (RW)



Reflective White (RF)



Warm White (WW)



Pearl Gray (PG)



Desert Sand (DS)



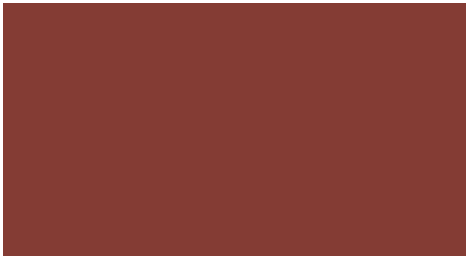
Surrey Beige (SU)



Slate Gray (SG)



Royal Blue (RO)



Terra Cotta (TC)



Cypress Green (CY)



Dark Bronze (DB)



Brite Red (BT)



Charcoal (CH)



Midnight Black (BL)



Galvalume ★ (GM)

★ Non-PVDF. 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 “TBK” on the Order Document refers to “To Be Selected” from standard PVDF colors as shown on this chart. Please note that PVDF is a slight upcharge over SP.

PVDF 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 pigmented PVDF resin achieve an SRI of 24-88, 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 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.*

PVDF COOL PANEL COLORS & RATINGS

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



Cool Coatings
Spec Sheet



Cool Roof Rating
Council Directory

PVDF COOL TECHNICAL INFORMATION

PVDF Performance Testing		
Industry Specifications Compliance	AAMA' 621-02 Requirements AAMA 2605-17A Requirements	Voluntary Specification, for High Performance Organic Coatings on Coil Coated Architectural Hot Dipped Galvanized (HDG) and Zinc-Aluminum Coated Steel Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (Coil Coating appendix)
Substrates	Pretreated substrates: Galvalume®, Hot-Dipped Galvanized (HDG) steel & Aluminum.	
Dry Film Thickness	ASTM D1400	0.2 - 0.3 mil primer; 0.7 - 0.8 mil topcoat
Gloss	ASTM D523 @ 60°	25 - 35

Physical Testing	Test Methods	Test Result
Solar Reflectance	ASTM E903	>25% Initial; > 15% after 3 years >65% Initial; >50% after 3 years
Emissivity	ASTM C1371, ASTM E408	0.80 (80%) minutes
Pencil Hardness	ASTM D3363	F-2H
Flexibility	T-Bend, ASTM D4145	0 - 2 T-Bend; No pick off
Adhesion	ASTM D3359	No adhesion loss
Reverse Impact	ASTM D2794	No cracking or adhesion loss
Abrasion, Falling Sand	ASTM D968	65 - 85 /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 - 24 hrs. 20% sulfuric acid - 18 hrs.	No effect
Acid Rain Test	Kesternich S02, DIN 50018	15 cycles; No objectionable color change
Alkali Resistance	ASTM D1308 10%, 25% NaOH, 1 hr.	No effect
Salt Spray Resistance	ASTM B117 5% salt fog @ 95°F	None or few #8 blisters; Max. average 1/16" Scribe creep; Passes 1000 hrs.
Humidity Resistance	ASTM D714, ASTM D2247 (100% relative humidity @ 95°F)	Passes 1500 hrs. No #8 blisters
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