



# PRODUCT DATA

### **PRODUCT DESCRIPTION**

Imagine a roof whose color shifts subtly from warm terra cotta to rich copper brown and finally to vivid tropical green. That's DURANAR VARI-Cool coatings in action. There's no other product like it that offers designers a unique look and meets the needs of builders. This groundbreaking polychromatic coating delivers a palette of vibrant color, while offering superior protection that takes each project far into the future.

DURANAR VARI-Cool coatings are a premium fluoropolymer (PVDF) pearlescent coating system created on the foundation of Kynar 500<sup>®</sup> or Hylar 5000<sup>®</sup> resin. It is the only coil-formed polychromatic coating integrating energy-saving ULTRA-Cool technology. DURANAR VARI-Cool coil coatings meet Cool Roof requirements of LEED, ENERGY STAR<sup>®</sup>, Title 24 and ASHRAE 90.1.

They are approved for use on properly cleaned and treated aluminum and coated steel substrates such as G90 hot dip galvanized, Galvalume<sup>®</sup> and Zincalume<sup>®</sup>. They are not intended for use on hot or cold rolled steel substrates for exterior exposure applications.

The result is a showcase project enhanced by technology that promises sustainable performance year after year.



## **SYSTEM OVERVIEW**

DURANAR VARI-Cool IR reflective fluoropolymer coatings are multi-coat systems consisting of a nominal 0.2 mil primer and 0.7 -0.8 mils fluoropolymer topcoat. They are available in a number of pre-formulated standard colors. Custom colors can also be formulated. DURANAR VARI-Cool coil coatings require minimal maintenance and minor scratches can be easily repaired in the field.

# **COMMERCIAL USES**

DURANAR VARI-Cool coil coatings are formulated to provide excellent performance against weathering in all environments. The cooling effects of DURANAR VARI-Cool coatings will offer potential benefits such as reduced air conditioning costs for commercial and residential construction, less product expansion and contraction, plus improved comfort levels for building occupants. The DURANAR VARI-Cool coating system is an excellent choice for architectural applications such as roof panels, building panels, curtain walls, store fronts, accents and corporate signage.

## DURABILITY

DURANAR VARI-Cool products benefit from the foundation of a factory-applied Kynar 500 or Hylar 5000 resin system, which are well known as best-in-class coatings. Delivered in cost-effective coil application, DURANAR VARI-Cool coatings provide durable, color-fast, glossretention attributes while utilizing ULTRA-Cool reflective coating technology. When applied and cured on properly prepared substrates, DURANAR VARI-Cool coatings offer brilliant color change along with exceptional color stability, chalk resistance, durability, abrasion resistance, chemical resistance and flexibility. Your polychromatic coating will remain beautiful for decades.

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\* Galvalume is a registered trademark of BIEC International, Inc. Zincalume is a registered trademark of BlueScope Steel Limited. Steelscape, Inc. holds exclusive rights to the Zincalume trademark within the U.S. Kynar 500 is a registered trademark of Arkema, Inc. Hylar 5000 is a registered trademark of Solvay Solexis, Inc.







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	Aluminum Substrate	Coated Steel <sup>1</sup> Substrate
Dry Film Thickness (nominal) ASTM D1400	0.20 mil primer 0.70 - 0.80 mil topcoat	0.20 mil primer 0.70 - 0.80 mil topcoat
Gloss	•	·
ASTM D523 @ 60°	10 - 40	10 - 40
Solar Reflectance ASTM 903		
Steep Slope:	>25% Initial; >15% after 3 years	>25% Initial; >15% after 3 years
Low Slope:	>65% Initial; >50% after 3 years	>65% Initial; >50% after 3 years
Pencil Hardness ASTM D3363	HB min.	HB min.
Flexibility <sup>2</sup> T-bend, ASTM D4145	1 T-bend; No pick-off	2 T-bend; No pick-off
Adhesion ASTM D3359	No adhesion loss	No adhesion loss
Reverse Impact ASTM D2794	1500 x metal thickness; No cracking or adhesion loss	3000 x metal thickness No cracking or adhesion loss
Abrasion, Falling Sand ASTM D968	65-85 l/mil	65-85 l/mil
Mortar Resistance ASTM C267	No effect	No effect
Detergent Resistance ASTM D2248 3% detergent @ 100°F (72 hrs.)	No effect	No effect
Acid Resistance ASTM D1308		
10% muriatic acid - 24 hrs. 20% sulfuric acid - 18 hrs.	No effect No effect	No effect No effect
Acid Rain Test Kesternich SO <sub>2</sub> , DIN 50018	15 cycles min. No objectionable color change	15 cycles min. No objectionable color chang
Alkali Resistance ASTM D1308		
10%, 25% NaOH, 1 hr.	No effect	No effect
Salt Spray Resistance ASTM B117 5% salt fog @ 95°F	No face blistering; Max. average 1/16" scribe creep. Passes 3000 hrs.	None or few #8 blisters; Max. average 1/8" scribe creep. Passes 1000 hrs.
Humidity Resistance ASTM D714, ASTM D2247 100% relative humidity @ 95°F	Passes 3000 hrs. No #8 blisters	Passes 1500 hrs. No #8 blisters
Exterior Exposure 10 yrs. @ 45°, south Florida ASTM D2244 ASTM D4214	Max. 5 fade Max. 8 chalk	Max. 5 fade Max. 8 chalk

<sup>1</sup> Coated Steel includes the following types of steel: G90 hot dip galvanized, Galvalume, and Zincalume.

<sup>2</sup> Fracturing or rupturing of substrate will rupture coatings. Heavy gauge and clad steel substrates impose limitations on formability.

**DURANAR VARI-Cool WARRANTY INFORMATION** PPG offers a comprehensive warranty on DURANAR VARI-Cool coil coatings. For complete warranty information and a copy of the DURANAR VARI-Cool coil coatings warranty, please call PPG at **1-800-258-6398**.

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