

Where cool meets color



PPG DURANAR[®]
cool-technology coil coatings



We protect and beautify the world[®]



Tough, colorful technology that keeps buildings cool

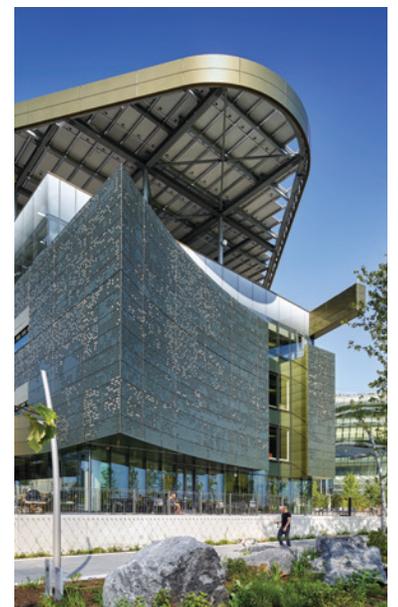
PPG *Duranar* fluoropolymer cool metal coil coatings are premium infrared-reflective (IR), multi-coat systems available in pre-formulated or custom colors. These coatings offer architects and building designers a wide palette of unique looks and color options – all while meeting cool roof requirements for LEED®, Cool Roof Rating Council (CRRC), California Title 24, ASHRAE 90.1 and numerous state, city and municipality voluntary codes.

The PPG Benefit

- IR-reflectivity can help to reduce energy consumption associated with air-conditioning systems
- Cooler interior spaces improve comfort levels for building occupants
- Reduced expansion and contraction can help increase life of roofs
- Wide color palette, including dark and bright colors
- Excellent color stability and gloss retention
- Exceptional abrasion and chemical resistance
- Good film flexibility

Suggested markets

Building products



Duramar cool-technology coil coating products

PPG Duramar® ULTRA-Cool®

Duramar ULTRA-COOL® Coil Coating System

This tough, multi-layer system delivers outstanding aesthetics, durability and long-term infrared reflectivity in a wide range of applications. Engineered to comply with industry-standard reflectance limits for steep-slope or low-slope roofing products, *Duramar ULTRA-Cool* coil coatings are available in a palette of light, medium and dark colors, creating a multitude of design options for architects and designers.

PPG Duramar® VARI-Cool®

Duramar VARI-COOL® Coil Coating System

Building on PPG's energy-saving *ULTRA-Cool* technology, *Duramar VARI-Cool* pearlescent coatings offer outstanding durability, color-fastness and gloss retention – but, with a twist. Produced with special-effect pigment particles, the *Duramar VARI-Cool* multi-coat system subtly shifts in color depending on both the viewing angle and how light refracts on the surface. The result offers brilliant, polychromatic color shifts that captivate and fascinate.



The House at Cornell Tech
Duramar ULTRA-Cool Coatings

Suggested end uses

Roof and exterior wall panels

Suggested end uses

Roof and exterior wall panels

Aluminum composite and accent trim

Corporate signage



Appaloosa Library
Duramar VARI-Cool Coatings

Duramar cool-technology coil coating products

Characteristics and performance apply to both *Duramar ULTRA-Cool* and *Duramar VARI-Cool* coating systems.



Product Characteristics	Test Standard	Aluminum	Coated Steel ¹
Dry Film Thickness	ASTM D1400	<i>Duramar ULTRA-Cool</i> : 0.15-0.30 mil primer / 0.70-0.90 mil topcoat <i>Duramar VARI-Cool</i> : 0.20 mil primer / 0.70-0.80 mil topcoat	
Gloss	ASTM D523 @ 60°	25 - 35	25 - 35

Performance Properties ²	Test Standard	Aluminum	Coated Steel ¹
Solar Reflectance (Steep Slope / Low Slope)	ASTM E903	> 25% initial; >15% after 3 years > 65% initial; >50% after 3 years	> 25% initial; >15% after 3 years > 65% initial; >50% after 3 years
Emissivity	ASTM C1371 E408	0.80 (80%) minutes	0.80 (80%) minutes
Pencil Hardness	ASTM D3363	F - 2H	F - 2H
Flexibility (T-Bend) ²	ASTM 4145	0 - 2 T-bend; no pick-off	0 - 2 T-bend; no pick-off
Adhesion	ASTM D3359	No adhesion loss	No 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 (38° C), 72 hours	No effect	No effect
Acid Resistance	ASTM D1308 10% muriatic acid - 24 hours 20% sulfuric acid - 18 hours	No effect No effect	No effect No effect
Acid Rain Test	Kesternich SO ₂ , DIN 50018	15 cycles minimum No objectionable change	15 cycles minimum No objectionable change
Alkali Resistance	ASTM D1308 10%, 25% NaOH, 1 hour	No effect	No effect
Salt Spray Resistance	ASTM B117 5% salt fog @ 95° F (35° C)	No face blistering; Max. average 1/16" scribe creep Passes 4,000 hours	None or few #8 blisters; Max. average 1/16" scribe creep Passes 1,000 hours
Humidity Resistance	ASTM D714, ASTM D2247, 100% relative humidity @ 95° F (35° C)	Passes 4,000 hours None or few #8 blisters	Passes 1,500 hours None or few #8 blisters
Exterior Exposure	ASTM D2244, ASTM D4214 10 Years @ 45°, South Florida	Maximum 5 fade Maximum 8 chalk	Maximum 5 fade Maximum 8 chalk

¹ Coated steel includes G90 hot-dip galvanized, GALVALUME® and ZINCALUME® substrates.

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

ABOUT THE PHOTOS:

Appaloosa Library
Scottsdale, AZ
Photos by Timmerman
Photography

**Emma & Georgina Bloomberg
Center at Cornell Tech**
Roosevelt Island, NY
Photos by Matthew Carbone

The House at Cornell Tech
Roosevelt Island, NY
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Photography

Port Pavilion on Broadway Pier
San Diego, CA
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