

METAL COATINGS COMPARISON GUIDE

COIL COATINGS



SHERWIN-WILLIAMS.
Coil Coatings



DRIVEN BY INNOVATION

AT SHERWIN-WILLIAMS,
WE'RE OBSESSED WITH
WHAT'S NEXT.

Over the last 150 years, we've built a reputation as a leader in coating innovation and performance. Relentless scientific research combined with our passion for inspiration allows us to achieve lasting durability and awe-striking beauty on every project we're a part of.

As a collaborative partner, we're committed to providing an educated foundation for what to expect from our coatings, as well as guidance throughout product selection.

*Together, we can define the best solution
to bring your vision to life.*



WHAT'S IN A COATING?

While all liquid coatings consist of resin, pigments, solvents and additives, not all are created equal. The combination of these ingredients produces coatings of varying performance capabilities, physical properties and costs. Understanding the basic technical foundation can help differentiate coatings so the best technology can be selected for the application or project.

RESINS

Resins provide the backbone of the formula, literally holding the entire coating system together. They affect basic performance capabilities such as resistance to abrasion, scratching, corrosion, moisture and UV light along with physical properties such as adhesion, hardness and flexibility.

Through our extensive investments in research and development, we create proprietary resins; this ensures that our coatings are equipped with the best resin system for the application at hand.



PIGMENTS
15%

provide color, hiding, and chemical resistance

RESINS
35%

bind pigments to the substrate and provide weather resistance properties

SOLVENTS
50%

are the vehicle by which the solids are transported to the substrate

ADDITIVES
>1%

provides unique properties that enhance the coating's durability, flexibility, hardness, weathering or texture to meet specific product needs

RESINS (CONTINUED)

POLYESTER

- Includes a wide class of resins that are custom-formulated for different end uses
- General purpose, interior and exterior metal building components
- Good weathering and corrosion-resistance
- Good flexibility
- Hard finish

SILICONIZED D-MODIFIED POLYESTER (SMP)

- Silicone added to polyester to strengthen weather-resistance and gloss retention.
- Exterior metal building components, roofing and wall panels
- Great weathering
- Great color and chalk resistance
- Hard finish

70% POLYVINYLDENE DIFLUORIDE (PVDF)

- Exterior metal building components, walls and roofing, composite panels, curtain walls
- Superior weathering/UV-resistance
- Excellent chalk, fade and stain resistance
- Softer finish that can be modified through formulation

FLUOROETHYLENE VINYL ETHER (FEVE)

- Higher-gloss applications and bright colors
- Exterior metal wall panels and composite panels
- Superior weathering/UV-resistance
- Exceptional chalk, fade and stain resistance

PIGMENTS

Primarily, pigments provide color and any special effects of a coating – i.e. anything having to do with appearance. At Sherwin-Williams Coil Coatings, our advanced knowledge of pigments also drives the performance of our coatings. Because of our abundant test data and research, we're able to enhance coating properties such as color stability, UV resistance, and solar reflectivity in a way that's unmatched by our competitors.

There are three classes of high-performance pigments: inorganic, organic and effects. (*Inorganic is sometimes referred to as ceramic or mixed-metal oxides.*)

INORGANIC (CERAMIC)

- Manufactured from complex metal oxides
- More stable to light or chemicals
- More opaque, with better ability to hide a substrate or base color
- Smaller color spectrum, lower chroma or brightness

ORGANIC

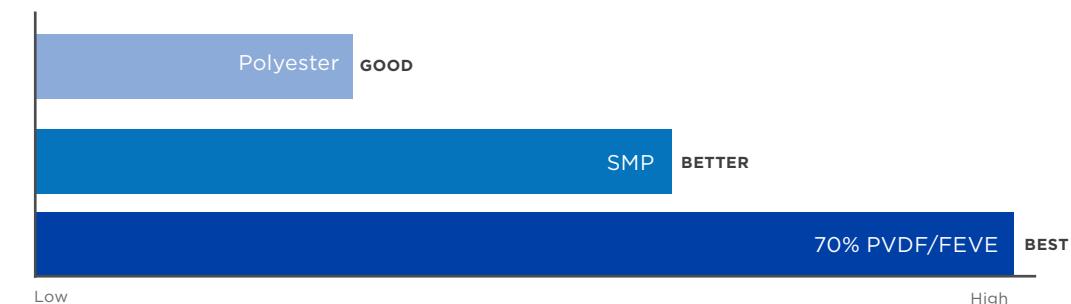
- More transparent or translucent
- Less stable, particularly to sunlight and heat
- Higher chroma or brightness, brighter than inorganic
- More color options than inorganic

EFFECTS

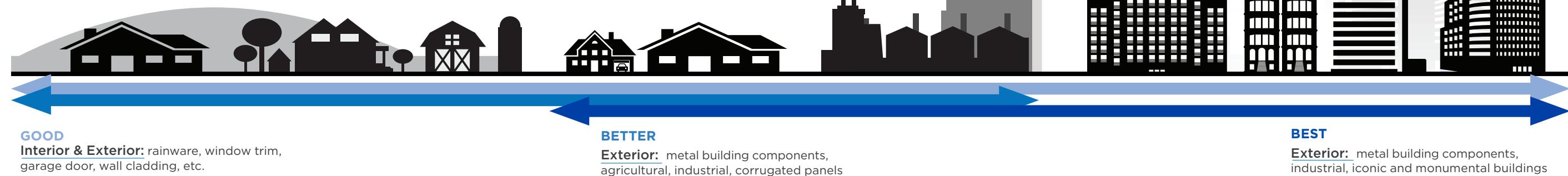
- Mica/Metallic
- Color-Shifting
- Intense Sparkle
- Solar Reflective

COATING PERFORMANCE

LEVEL OF PERFORMANCE: GOOD, BETTER, BEST



END USES EXAMPLES* *ADDITIONAL DETAILS ON PAGE 21-22



FIELD-TESTED TO LAST

Every Sherwin-Williams Coil Coating system is subjected to the harshest testing environments to ensure they stand the test of time.

Since the 1950s, over half a million panels have faced all that Mother Nature can throw at them at our test fence facility in Fort Myers, Florida. It's the most accredited* natural exposure facility in the coil and extrusion coatings industry, and delivers confidence that our coatings will look and perform brilliantly for generations.

REDEFINING RESILIENCE

In addition to the testing site in Fort Myers, we carry out extensive research at laboratories across the world. This ensures that our coatings are continually tested in every possible condition, and as a result, they're formulated to defy fading, chalking, blistering, cracking, marring and gloss degradation.



EXCEEDING STANDARDS

Our relentless research and innovative approach provides us with a wide range of products that meet or exceed the toughest performance specifications, including those set by the **American Architectural Manufacturing Association (AAMA)** and the **American Society for Testing and Materials (ASTM)**.



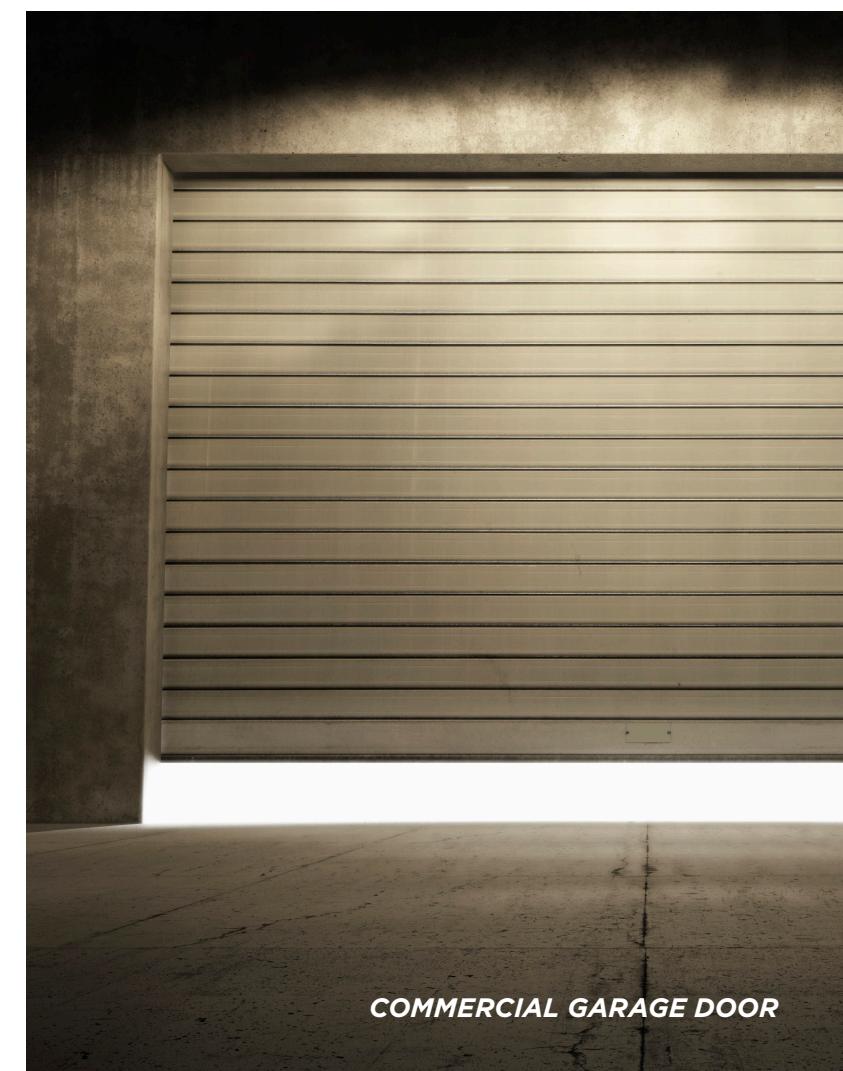
OUR PRODUCT

POLYKOTE®

From good weathering, flexibility, hardness to corrosion-resistance and color customization, this coating can be tailored with a combination of properties making Polykote an excellent multi-purpose coating. Because it's highly modifiable, it has a wide range of interior and exterior end uses.

PRODUCT POLYKOTE

Resin	Polyester
Benefits	Color customization, weather- and scratch-resistant, dirt- and stain-resistant, excellent adhesion, cost-effective
Color	Highly customizable in wide spectrum of popular industry colors
End Uses	Interior: Liner panels (acoustical), doors, trim Exterior: Rainware, carports, roofing, window cladding, screen frames, muntin bars, curtain rods, canopies, awnings, entry and garage doors, enclosures
Sustainability	Material Transparency coating options



OUR PRODUCT

WEATHERXL™ & WEATHERXL CRINKLE

The carbon-silicone bond is one of the strongest bonds in nature, making WeatherXL and WeatherXL Crinkle products incredibly durable in tough conditions. In fact, the resistance to chalking, fading and scratching is the best in the industry for an SMP. This two-coat system is ideal for a number of commercial and residential metal roofing, wall panel and other exterior products.

PRODUCT	WEATHERXL & WEATHERXL CRINKLE
Resin	Siliconized Modified Polyesters (SMP)
Benefits	Great durability in tough conditions, very good weatherability, resistance to chalking, fading and scratching, with good color retention
Color	Available in wide palette of colors, many of which are available in solar-reflective formulations to meet LEED certifications
End Uses	Exterior: Commercial, agricultural, and residential metal roofing and wall panels, metal building components, pre-engineered building systems, rainware, carports, entry and garage doors
Sustainability	Energy Savings with Solar Reflective coating options



OUR PRODUCT

FLUROPON®

If the goal is amazing color that lasts, look to the field-proven endurance of Fluropon. It provides a superior weathering system, making structures remain "like new" for decades. Fluropon coatings meet the most rigorous specifications in the industry and have been protecting long-lasting beauty on a variety of architectural, commercial and residential facades.

PRODUCT	FLUROPON
Resin	70% POLYVINYLDENE DIFLUORIDE (PVDF)
Benefits	Exceptional resistance to outdoor elements such as UV rays, dirt, stains, chemicals, heat, humidity and corrosive salt, excellent color-retention and consistency, high film integrity, great flexibility, formability and overall adhesion
Color	Available in wide range of colors, sheens, gloss levels and special effects and available with solar-reflective pigments to meet LEED certifications
End Uses	Exterior: Iconic and monumental buildings, commercial and residential metal roofing and wall panels, composite and insulated wall-panel systems
Sustainability	Energy Savings with Solar Reflective Pigments and Material Transparency coating options

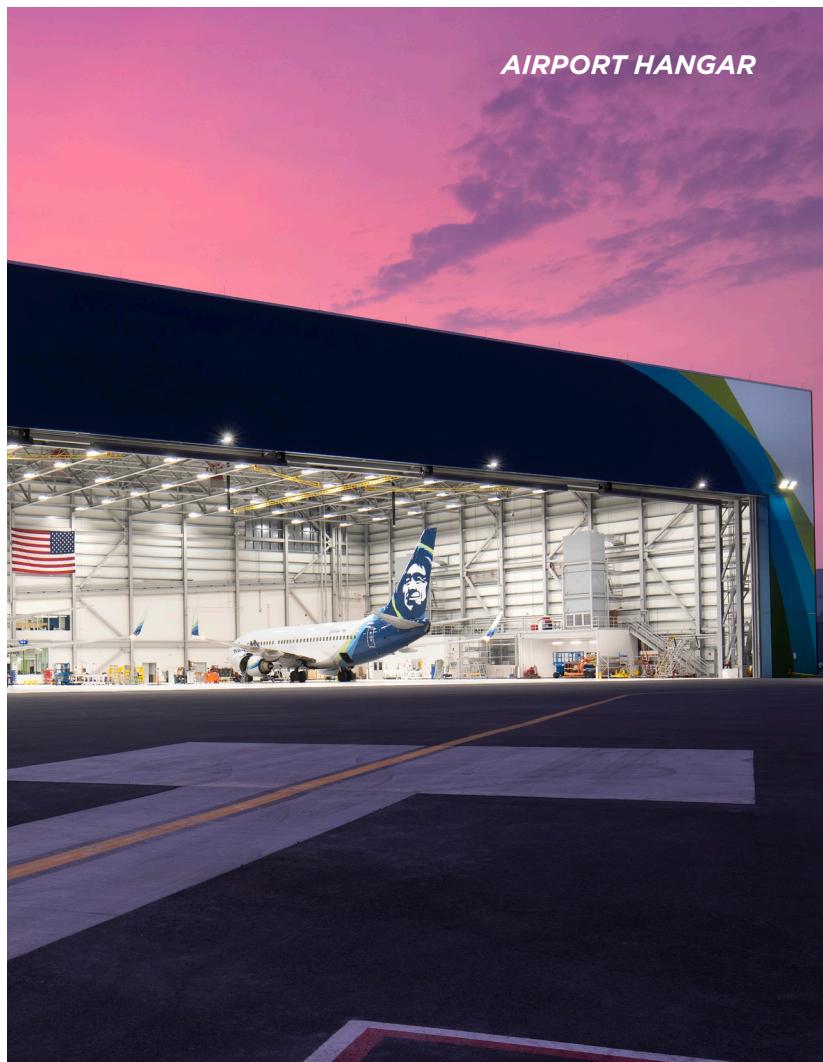


OUR PRODUCT

FLUROTHANE®

When a project calls for extra defense against corrosion or chemicals, our thick film Flurothane system should be considered. Consisting of 70% PVDF resins, these systems offer strong adhesion to the substrate and topcoat and exceptional protection in the harshest of environments.

PRODUCT	FLUROTHANE
Resin	70% POLYVINYLDENE DIFLUORIDE (PVDF)
Benefits	Exceptional corrosion and chemical-resistance, superior weathering to sun, rain, UV rays, salt, humidity and natural elements, excellent overall adhesion, maximum abrasion- and chemical-resistance, great flexibility and formability
Color	Available in wide range of standard and custom colors, sheens, gloss levels and special effects
End Uses	Exterior: Coastal environments, industrial and heavy industrial environments that are higher corrosive areas (power plants, chemical facilities, airports, water treatment plants, and more), metal roofing and wall panels
Sustainability	Energy savings with solar-reflective pigment coating options



OUR PRODUCT

VALFLON®

When looking to make a structure really pop, Valflon is a great option that does not sacrifice durability. With a wide variety of colors available in high gloss, it's a popular choice for branding logos and signs, accent pieces and other high-end architectural, commercial and residential projects.

PRODUCT VALFLON

Resin	FLUOROETHYLENE VINYL ETHER (FEVE)
Benefits	High-gloss, brilliant depths of colors and color consistency, excellent protection against weathering such as UV rays, heat, humidity, chalking, fading, great flexibility, formability and overall adhesion
Color	Superior depth of color with high gloss levels and special effects available
End Uses	Exterior: Architectural composite panels, column covers, metal wall panels, branding, accent pieces and signage



MAKE AN INFORMED DECISION

When deciding which of our proprietary coatings is the right coating, there are a few things to consider as we guide you through the process. First and foremost, understanding the **END USE** is crucial to a project's overall success. This allows Sherwin-Williams to assess which coating characteristics are necessary, which are not, and recommend the ideal coating from there.

IN ADDITION TO THE END USE, CONSIDER THE FOLLOWING:

LOCATION?

- Where is this project geographically located?
- How will sun exposure and weather elements affect the building product?
- Does it require added protection against corrosion?
- What is the end application?

COLOR?

- What color is desired? Custom color? Effect coating?
- Is the selected color part of the brand/style of the building?

TOUGHNESS?

- Is damage-resistance a requirement for your building?
- Is your building a work structure?

SUSTAINABILITY?

- Are there sustainability requirements? Solar Reflective? Material Transparency?



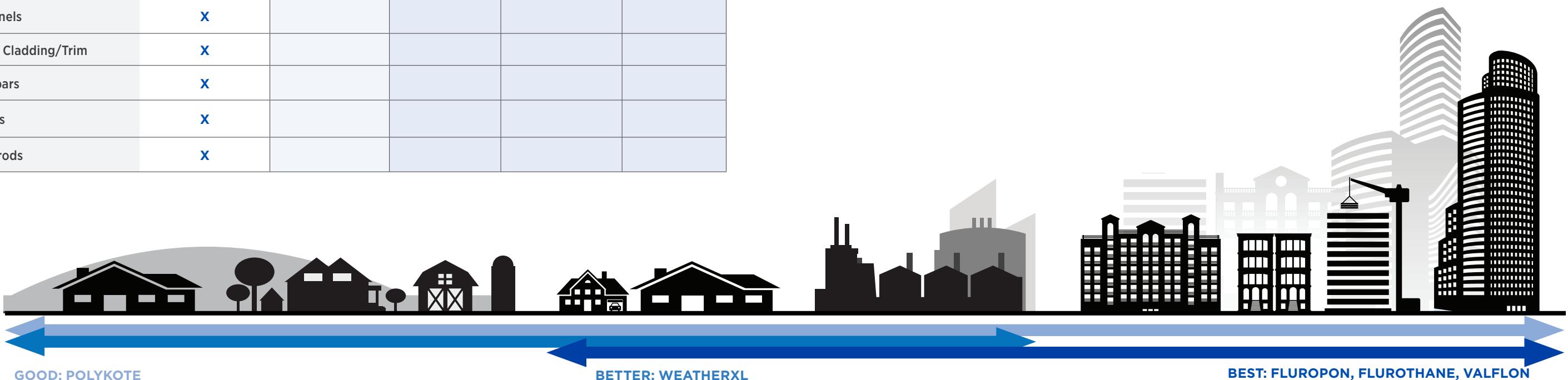
OUR AT-A-GLANCE

END USES AND COATINGS TO BE USED

END USE	GOOD	BETTER	BEST		
	POLYKOTE®	WEATHERXL™	FLUROPON®	FLUROTHANE®	VALFLON®
Monumental/Architectural			X	X	X
Commercial Branding			X		X
Wall Panels	X	X	X		X
Commercial		X	X	X	X
Residential		X	X		
Agricultural	X	X	X		
Industrial		X	X	X	
Heavy Industrial				X	
Coastal				X	
Wall Panels	X	X	X		X
Composite Wall Panels			X		X
Roof Panels		X	X		
Rainware	X	X			
Carports	X	X			
Entry Doors	X	X			
Garage Doors	X	X			
Liner Panels	X				
Window Cladding/Trim	X				
Muntin bars	X				
Canopies	X				
Curtain rods	X				

PRODUCT COMPARISON

CHARACTERISTIC	GOOD	BETTER	BEST		
	POLYKOTE®	WEATHERXL™	FLUROPON®	FLUROTHANE®	VALFLON®
Resin	Polyester	SMP	PVDF	PVDF	FEVE
Pigments/Color	Primarily Organic/Inorganic	Primarily Inorganic/Effects	Primarily Inorganic/Effects	Primarily Inorganic/Effects	Primarily Inorganic/Effects
Chalk	Good	Very Good	Excellent	Excellent	Excellent
Fade	Good	Very Good	Excellent	Excellent	Excellent
Weathering	Good	Very Good	Excellent	Excellent	Excellent
Dirt Resistance	Good	Very Good	Excellent	Excellent	Excellent
Hardness	Very Good	Very Good	Good	Good	Good
Flexibility	Good	Good	Excellent	Excellent	Excellent
Corrosion	Good	Good	Good	Excellent	Good
Sustainability	-	SR	SR, Material Transparency	SR	-
Applied Cost	\$	\$\$	\$\$\$	\$\$\$\$	\$\$\$\$



RESIDENTIAL ROOF PANELS



COMMERCIAL WALL PANELS



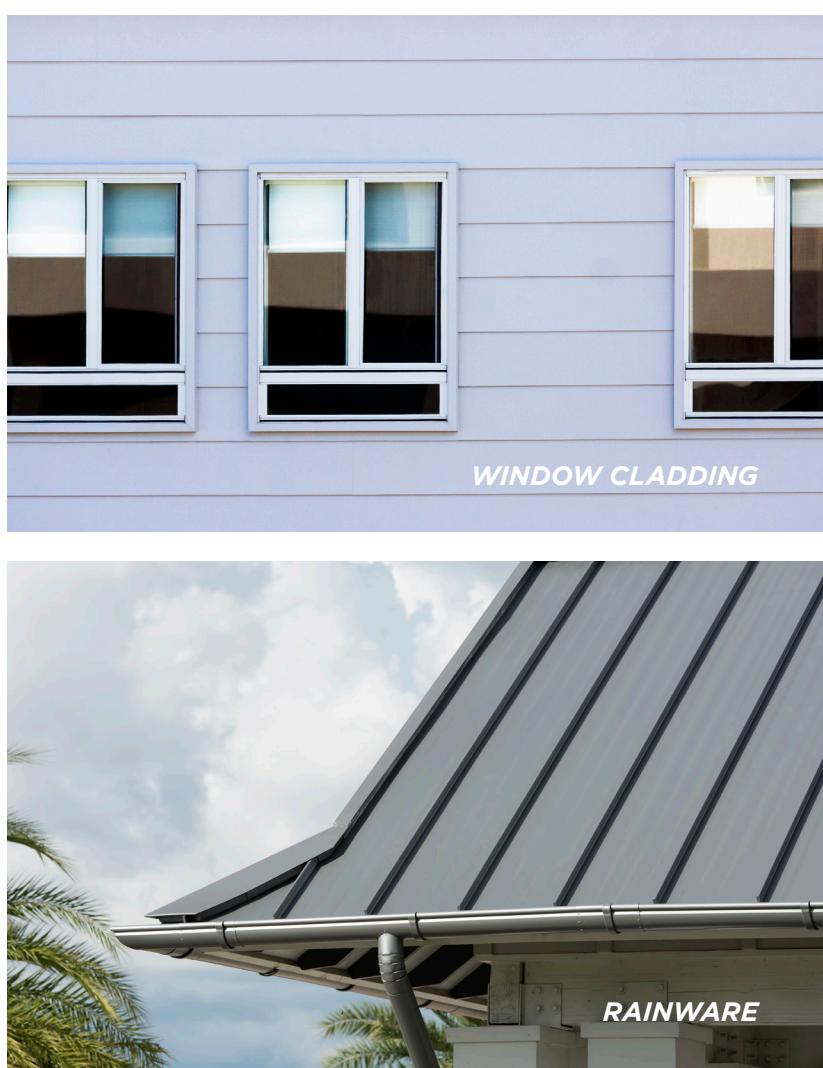
EDUCATIONAL WALL PANELS



GARAGE DOOR



RAINWARE



LET'S GET STARTED

At Sherwin-Williams, we know there's many factors to consider when choosing the optimal metal coating for your next project. We're committed to being a collaborative partner in this endeavor for an easy process that yields successful results. As leaders in the coil and extrusion industry, we're confident our products will exceed your project goals and make your vision a beautiful reality that will last generations.

WE'RE HERE TO HELP

Coil Customer Service:

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Visit us online at:
coil.sherwin.com



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