PPG PRIMERON®

High-performance powder primer series

July 31, 2024

We protect and beautify the world®

Why use a powder primer?

After blasting the metal surfaces, primers can be applied to slow down the speed of oxidation, create more consistency in the application of the powder coatings and allow the powder coatings to more easily bond to metal edges.

PPG powder primers are designed to meet various ISO 12944 corrosivity category standards

Category and Typical Environment	
C1	**Indoor:** Heated indoor spaces without elevated condensation.
C2	**Indoor:** Unheated indoor spaces with increased condensation. **Outdoor:** Atmospheres with low level of pollution. Mainly rural areas.
C3	**Indoor:** Production rooms with high humidity and low contamination. **Outdoor:** Urban and industrial atmospheres with moderate sulfur dioxide pollution. Coastal areas with low salinity.
C4	**Indoor:** chemical facilities, swimming pools. **Outdoor:** Industrial areas and coastal areas with moderate salinity.
C5	**Indoor:** Buildings with almost permanent condensation and heavy air pollution. **Outdoor:** Industrial areas with high humidity and aggressive atmosphere.
CX	**Outdoor:** Coastal and offshore areas with high salinity and industrial areas with extreme humidity.

LEAST SEVERE

MOST SEVERE

Introducing the PPG *Primeron* primer portfolio

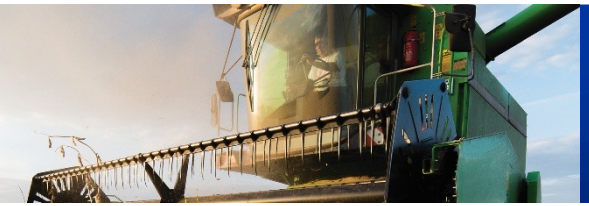
- Five product lines designed with special features that meet various substrate, environmental and end-use requirements
- Provides high corrosion resistance for a variety of substrates, including steel, hot-dip-galvanized steel, metalized steel and aluminum

Suggested end uses
Gas or liquid tanks and pipelines
Truck, trailer and automotive parts
Agricultural and construction machinery
Automotive underbody and other parts
Seacoast or applications with high corrosion performance requirements

Primeron high-performance product lines

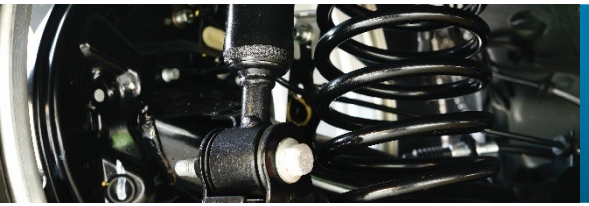
Primeron **Legacy**

A traditional zinc-rich primer offering our best corrosion protection in this technology



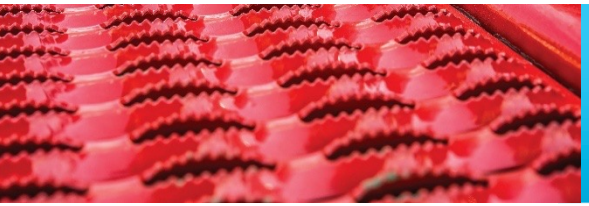
Primeron **Optimal**

A zinc-rich primer that delivers exceptional corrosion protection and a balanced offering of other properties



Primeron **Auto**

Designed for layered protection in automotive specialty markets, with options for exceptional flexibility, chip and corrosion resistance, UV durability and outgassing



Primeron **Edge**

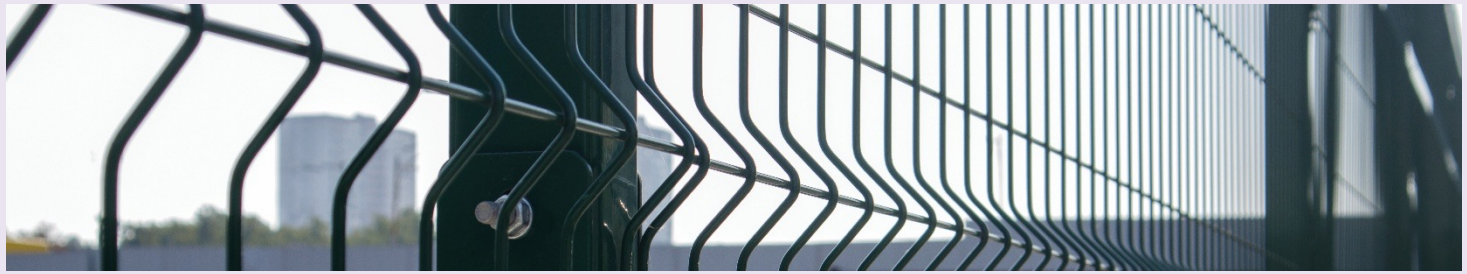
High-edge primer technology offering best-in-class corrosion protection for substrates with sharp and laser-cut edges

Primeron **Versa**

Outgas-friendly, zinc-alternative primers that provide very excellent corrosion protection for multiple substrates

Primeron® Legacy

Zinc-rich primer with exceptional corrosion protection



Products, benefits and characteristics

- **PCM70140:** A traditional zinc-rich primer for use on mechanically pretreated steel, offering our best corrosion protection in this technology

ISO 12944 C4 primer that passes C5 specification for corrosion resistance

Very good flow and appearance

Low bake capability

Suggested Industries
Energy applications
General industrial
Automotive parts and accessories

Suggested End Uses
Gas or liquid tanks and pipelines
Seacoast walls, fences or metal objects

ISO 12944 Corrosivity Category
C4

Primeron® Legacy

Zinc-rich primer with exceptional corrosion protection

Properties	Test Method	Value
Color	-	Dark gray
Surface	-	Semi-gloss, smooth
Gloss at 60°	ISO 2813	55-70
Specific Gravity	Calculated	3.6 g/cm^3
Impact Resistance	ISO 6272 / ASTM D2794	80 in./lbs. direct 80 in./lbs. reverse
Adhesion	ISO 2409	5B, pass
Conical Mandrel	ISO 6860	1/8”, pass

Partial Curing	
7 - 10 minutes	275˚ F (135˚ C)
3 - 5 minutes	300˚ F (149˚ C)
1 - 2 minutes	350˚ F (177˚ C)

Full Curing	
20 minutes	275˚ F (135˚ C)
10 minutes	300˚ F (149˚ C)
5 minutes	350˚ F (177˚ C)

Storage Conditions
12 months / 77˚ F (25˚ C)

Primeron® Optimal

Zinc-rich primer with balanced performance properties

Products, benefits and characteristics

- **PCMT70149:** Exceptional corrosion resistance and a balanced offering of other properties, including better coverage, applied cost, adhesion, semi-conductivity, recoatability and transfer efficiency than traditional zinc primers

Corrosion performance on all substrates

Recoatable with higher transfer efficiency than traditional zinc primers

2x

Almost double the theoretical coverage of *Primeron* Legacy primer

Suggested Industries
Heavy-duty equipment
General industrial
Automotive parts and accessories

Suggested End Uses
Construction/agricultural equipment
Seacoast walls, fences or metal objects

ISO 12944 Corrosivity Category
C5

Primeron® Optimal

Zinc-rich primer with balanced performance properties

Properties	Test Method	Value
Color	-	Dark gray
Surface	-	Semi-gloss, smooth
Gloss at 60°	ISO 2813	55-70
Specific Gravity	Calculated	2.0 g/cm^3
Impact Resistance	ISO 6272 / ASTM D2794	160 in./lbs. direct
Adhesion	ISO 2409	5B, pass
Conical Mandrel	ISO 6860	1/8”, pass

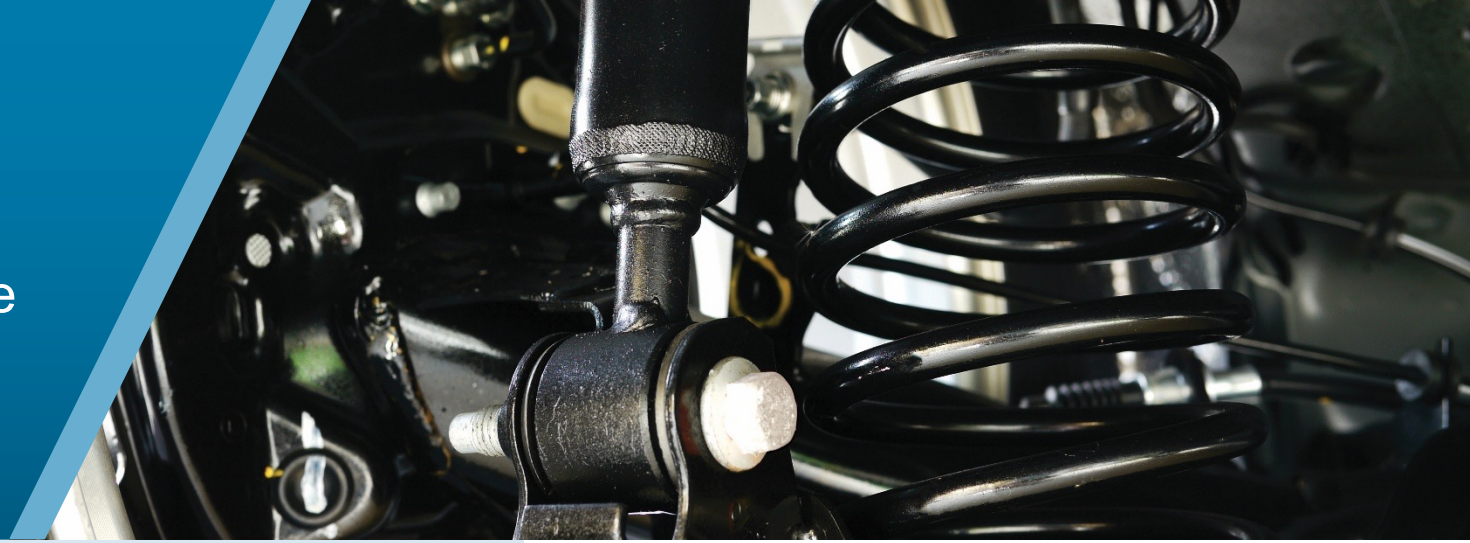
Partial Curing	
7 - 10 minutes	275˚ F (135˚ C)
3 - 5 minutes	300˚ F (149˚ C)
1 - 2 minutes	350˚ F (177˚ C)

Full Curing	
20 minutes	275˚ F (135˚ C)
10 minutes	300˚ F (149˚ C)
5 minutes	350˚ F (177˚ C)

Storage Conditions
12 months / 77˚ F (25˚ C)

Primeron® Auto

Layered protection for automotive and specialty markets



Products, benefits and characteristics

- **PCF90202, PCF70406:** polyester epoxy primers for aluminum wheels with great adhesion to liquid topcoats and excellent outgassing
- **PCT99157:** UV-durable polyester primer for aluminum wheels with great adhesion to liquid topcoats and excellent outgassing
- **PCM90133:** epoxy primer for steel/aluminum underbody applications with excellent performance over electrocoat or used as a monocoat
- **PCF70404:** polyester epoxy primer for steel/aluminum with excellent chip resistance when used over electrocoat
- **PCT90111M:** multi-use, polyester primer optimized for alkyd topcoats

Excellent layering over e-coat or under liquid topcoats

Good flow, appearance and mechanical properties

Options for chip resistance, UV durability and outgassing

Suggested Industries

Automotive parts and accessories

Suggested End Uses

Aluminum wheels

Automotive underbody parts

Automotive body

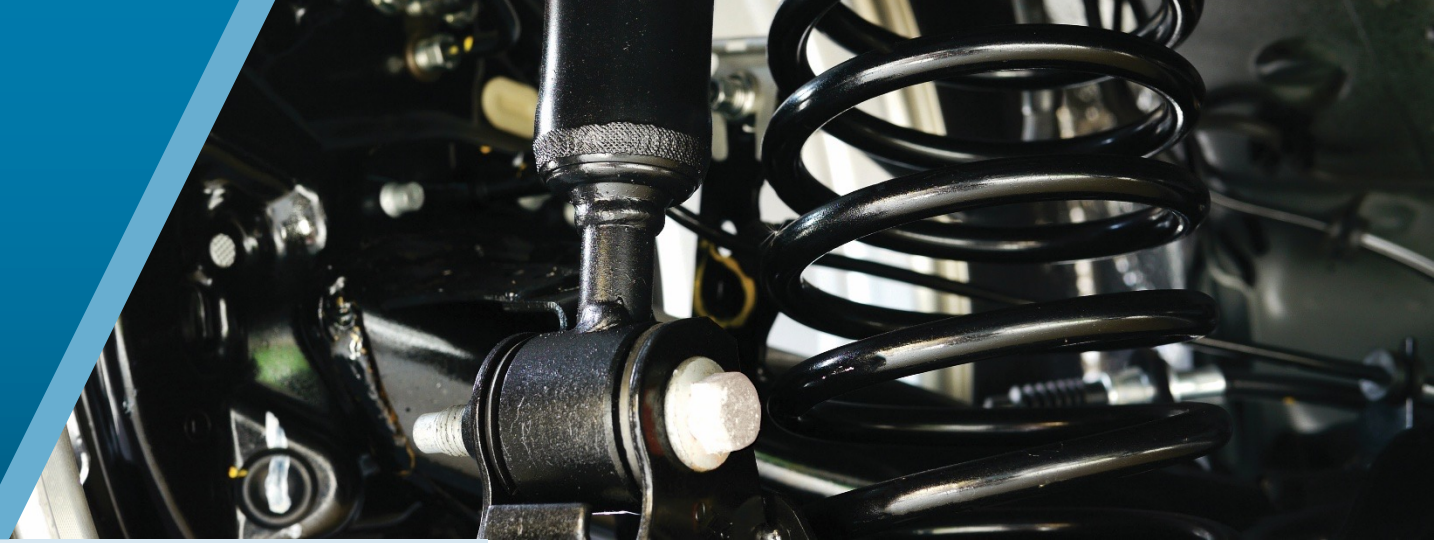
ISO 12944 Corrosivity Category

C4: PCM90133

C3: All other products

Primeron® Auto

Layered protection for automotive and specialty markets

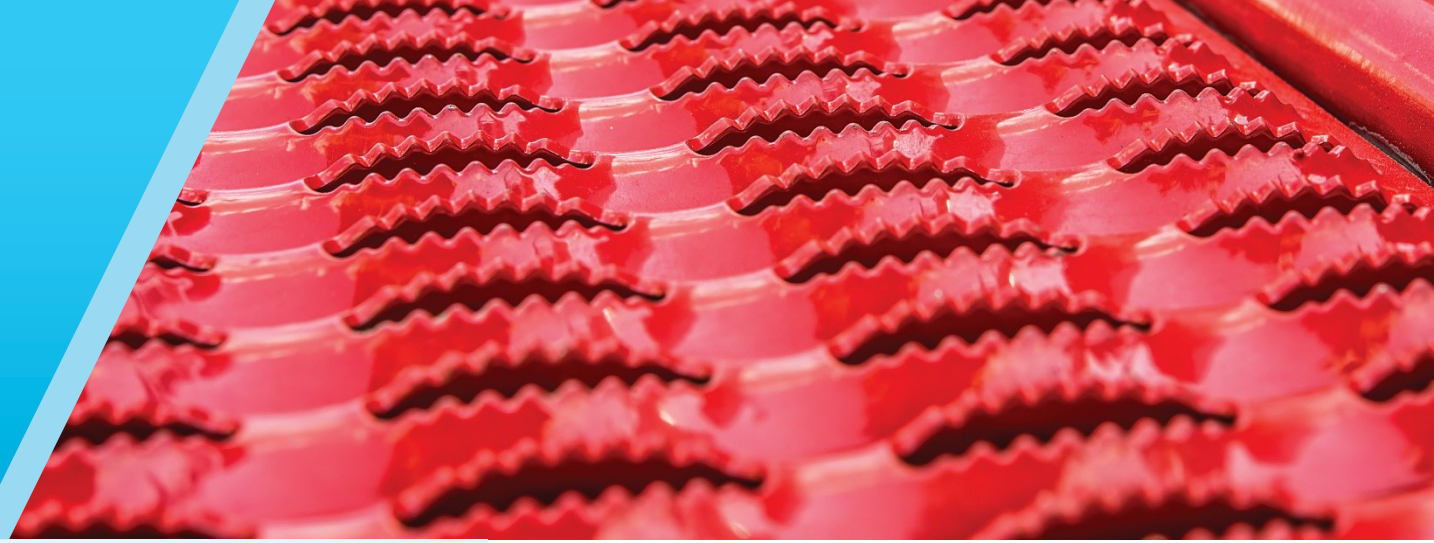


Properties*	PCF90202	PCF70406	PCT99157	PCM90133	PCF70404	PCT9011M
Color	Black	Gray	Black	Black	Gray	Black
Surface	Smooth	Smooth	Smooth	Smooth	Smooth	Smooth
Gloss at 60°	70 minimum	70 minimum	80 minimum	80 minimum	10-25	55-70
Specific Gravity	1.3 g/cm^3	1.3 g/cm^3	1.2 g/cm^3	1.5 g/cm^3	1.3 g/cm^3	1.6 g/cm^3
Impact Resistance	100 in./lbs. direct	100 in./lbs. direct	80 in./lbs. direct	160 in./lbs. direct	100 in./lbs. direct	80 in./lbs. direct
Adhesion	5B, pass	5B, pass	5B, pass	5B, pass	5B, pass	5B, pass
Conical Mandrel	1/8”, pass	1/8”, pass	1/8”, pass	1/8”, pass	1/8”, pass	1/8”, pass
Full Curing	20 minutes 350˚ F (177˚ C)	30 minutes 350˚ F (177˚ C)	30 minutes 350˚ F (177˚ C)	5 minutes 350˚ F (177˚ C)	30 minutes 350˚ F (177˚ C)	25 minutes 350˚ F (177˚ C)

* Properties on this slide use the same test methods as other *Primeron* products. For information about full curing at other temperatures, partial curing or conditions, please contact your PPG sales representative or email ic-na@ppg.com.

Primeron® Edge

Designed for best-in-class sharp edge protection



Products, benefits and characteristics

- **PCMT30105:** A semi-conductive product that allows for easier topcoating and provides excellent sharp edge protection
- **PCF70283:** A preferred primer for heavy-duty equipment, offering good edge corrosion resistance and overall protection

Strong corrosion protection

Enhanced edge coverage for sharp, complex or laser-cut parts

Can help eliminate edge rounding equipment / extra machining

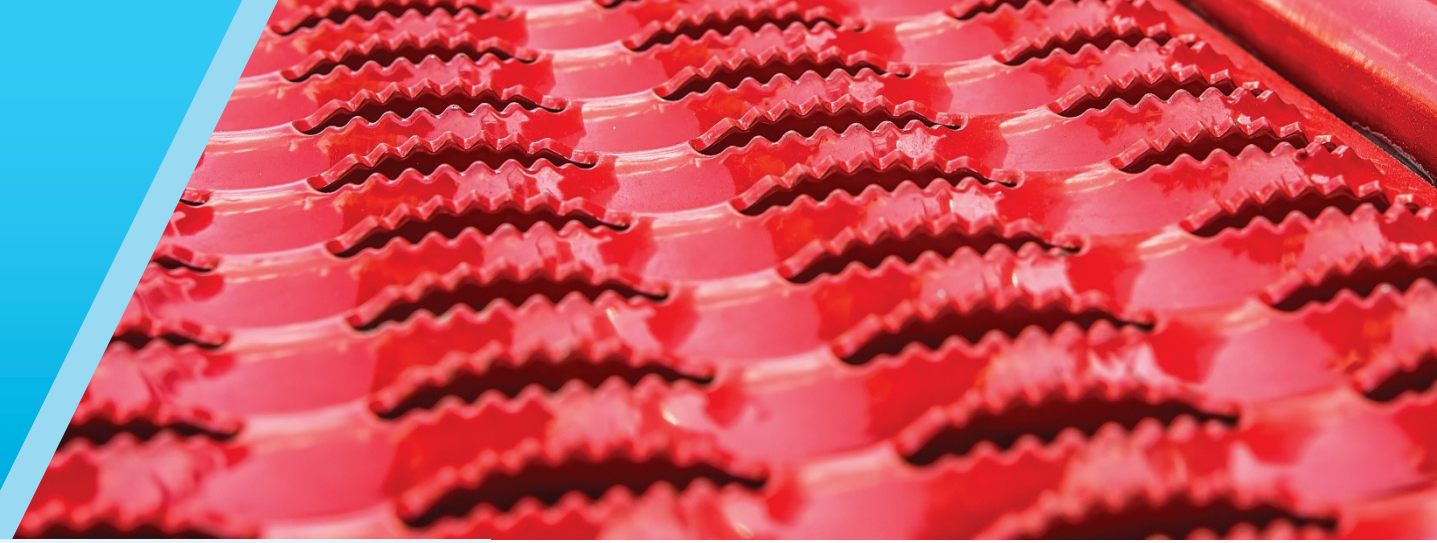
Suggested Industries
Heavy-duty equipment
Electrical and power generation

Suggested End Uses
Vents, steps and louvres
Electrical boxes and air conditioners

ISO 12944 Corrosivity Category
C4: PCMT30105
C3: PCF70283

Primeron® Edge

Designed for best-in-class sharp edge protection



Properties	Test Method	Value*
Color	-	Medium gray (PCF70283) Light tan (PCMT30105)
Surface	-	Smooth
Gloss at 60°	ISO 2813	Varies by product
Specific Gravity	Calculated	1.6 g/cm^3
Impact Resistance	ISO 6272 / ASTM D2794	80 in./lbs. direct
Adhesion	ASTM D3359	5B, pass
Conical Mandrel	ASTM D522	1/8”, pass

Partial Curing*	
5 - 7 minutes	350˚ F (177˚ C)
4 - 5 minutes	375˚ F (191˚ C)
3 - 4 minutes	400˚ F (204˚ C)

Full Curing*	
16 - 20 minutes	350˚ F (177˚ C)
12 - 15 minutes	375˚ F (191˚ C)
8 - 12 minutes	400˚ F (204˚ C)

Storage Conditions
12 - 24 months / 77˚ F (25˚ C)

* Values indicate a range of performance across the entire family of products. For product-specific values, please contact your PPG sales representative or email ic-na@ppg.com.

Primeron® Versa

A versatile primer for multi-substrate use

Products, benefits and characteristics

- **PCMT70101:** Surface-tolerant epoxy primer that has good adhesion, great coverage and easy application with semi-conductivity that facilitates topcoat application
- **PCMB70102:** A user-friendly epoxy primer that can adapt to many different applications; especially outgas-friendly when used over galvanized steel and cast metals

Strong corrosion protection across a broad range of substrates

Good intercoat adhesion and compatibility with a wide range of topcoats

Excellent alternatives to zinc-rich primers

Suggested Industries
Electrical and power generation
General industrial

Suggested End Uses
Fencing, utility poles, lamp posts
Stadium seating

ISO 12944 Corrosivity Category
C5: PCMT70101
C4: PCMB70102

Primeron® Versa

A versatile primer for multi-substrate use

Properties	Test Method	Value*
Color	-	Gray
Surface	-	Smooth
Gloss at 60°	ISO 2813	Varies by product
Specific Gravity	Calculated	1.6 g/cm^3
Impact Resistance	ISO 6272 / ASTM D2794	80 in./lbs. direct
Adhesion	ASTM D3359	5B, pass
Conical Mandrel	ASTM D522	1/8”, pass

Partial Curing*	
6 - 9 minutes	275˚ F (135˚ C)
3 - 5 minutes	300˚ F (149˚ C)
2 - 3 minutes	350˚ F (177˚ C)

Full Curing*	
20 - 30 minutes	275˚ F (135˚ C)
10 - 20 minutes	300˚ F (149˚ C)
5 - 10 minutes	350˚ F (177˚ C)

Storage Conditions
12 months / 77˚ F (25˚ C)

* Values indicate a range of performance across the entire family of products. For product-specific values, please contact your PPG sales representative or email ic-na@ppg.com.

Primeron primers key feature summary

	Primeron Legacy	*Primeron* Optimal	*Primeron* Auto*	*Primeron* Edge*	*Primeron* Versa*
Key Features	**Zinc primer** offering our best corrosion protection in this technology	**Zinc-rich primer** with excellent corrosion protection and a balance of other properties	**Layer with liquid topcoats or over e-coat** for automotive-grade performance	**Very good sharp edge coverage**, hides casting defects	**Multi-substrate capable**, good intercoat adhesion, excellent alternative to zinc
Chemistry	Epoxy	Epoxy	Epoxy, polyester, polyester epoxy	Epoxy, polyester epoxy	Epoxy
Density	3.6 g/cm^3	2.0 g/cm^3	1.7 g/cm^3	1.6 g/cm^3	1.6 g/cm^3
Overall Corrosion Performance	★★★★	★★★★	★★★	★★★	★★★★
Edge Protection	★	★★★	★★	★★★	★★
Mechanical Properties	★★	★★	★★★	★★	★★
Coverage	★	★★	★★	★★★	★★★

* Values indicate a range of performance across the entire family of products. For product-specific values, please contact your PPG sales representative or email ic-na@ppg.com.

Thank you for your time today

Your Name Here
Your Title

O: 123-456-7890
M: 123-456-7890
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