

# POWERCRON® 590-534

Cationic Epoxy Electrocoat

## **TECHNICAL BULLETIN**

#### **Highlights**

POWERCRON 590-534 is PPG's seventh generation cationic epoxy technology. Its advantages include:

- State-of-the-art corrosion resistance without the use of heavy metals.
  - > No lead, chrome or zinc
  - Excellent performance with nonchrome sealers
- One-Component feed system.
  - > Improved quality and consistency
  - > Easier to use
  - Reduced lab testing
  - > Simplified material handling
- VOC less than 0.5 lbs/gal.
  - > Very low solvent content
  - No solvent additions
  - > Non-HAP coating
  - > Low smoke/low odor formulation
  - Reduced oven fouling
- Lower BOD/COD in wastewater.
  - > Minimize water treatment
- Broad commercial use for highperformance applications.
  - > Automotive parts
  - Electrical equipment
  - > Marine engines
  - > Fasteners
- Approved by Major OEMs.
  - > GM, Ford, Chrysler

### **Technical Properties**

Property	Test Method	Performance	
Color		Black	
Film Thickness	ASTM D7091	0.5 - 1.5 Mils	
Gloss - 60 Degree	ASTM D523	65 – 85	
Pencil Hardness	ASTM D3363	2H Minimum	
Direct Impact	ASTM D2794	120 in-lb Minimum	
Reverse Impact	ASTM D2794	100 in-lb Minimum	
Crosshatch Adhesion	ASTM D3359	4B – 5B	
Humidity	ASTM D1735	1000 Hours Minimum	
Water Immersion	ASTM D870	250 Hours Minimum	
Gravelometer	GM9508P	6 Minimum	
Throwpower	GM9535P	12 – 15 inches	

Cold Rolled Steel Lab Panels, Zinc Phosphate Pretreatment. 0.6 mils Average Film Thickness, Cure 20 Minutes @ 375°F

Property	Substrate / Pretreatment	Salt Spray* 1000 Hours	20 Cycle** Scab
Corrosion Resistance	CRS/Zinc Phos/Non-Chrome	1 – 2 mm	1 – 2 mm

(Average Total Scribe Creep), \* Salt Spray - ASTM B117

\*\* Cycle Scab - GM9511P, Cold Rolled Steel Lab Panels

Cure 20 Minutes @ 375°F

#### **Commercial Uses**

- Agricultural & Construction
- Computer Parts
- Compressors
- Fasteners
- Generators

- Heavy Duty Trucks
- Marine Engines
- Switchgear
- Transformers

### **Application Data**

Standard Bake: 20 Minutes at 375°F Metal Temperature

**VOC:** 0.3 – 0.5 lbs. per gallon minus water (as supplied)

HAPs: None Heavy Metals: None

Note: Cationic epoxy technologies are not color stable.

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