

POWERCRON® XP Cationic Epoxy Electrocoat

TECHNICAL BULLETIN

Highlights

POWERCRON XP is PPG's high edge coverage sixth generation cationic epoxy technology optimized specifically for fasteners. Its advantages include:

- Wide operating window
- Built-in torque control
- Non-sticking formulationDry to touch
- No recess fill issues
- No thread fill
- State-of-the-art corrosion resistance
- Sharp edge coverage
- Environmentally friendly, heavy metalfree formulation
 - Lead-free film
 - Lead-free effluent
 - Chrome-free system
- Lower applied cost
 - Reduced film shrinkage
 - > Reduced cure temperature
 - Reduced oven maintenance
- Reduced emissions
 - Low solvent content
 - > VOC less than 0.6 lbs/gal
 - Non-HAP coating

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Technical Properties

Property	Test Method	Performance	
Color		Any other than white	
Film Thickness		0.5 - 1.2 Mils	
Gloss - 60 Degree	ASTM D523	25 - 55	
Pencil Hardness	ASTM D3363	2H Minimum	
Crosshatch Adhesion	ASTM D3359	4B – 5B	
Salt Spray	ASTM B117	1000 Hours Minimum	
Humidity	ASTM D1735	1000 Hours Minimum	
Water Immersion	ASTM D870	240 Hours Minimum	
Gravelometer	GM9508P	6 Minimum	
Rust Spot	GM9632P	Zero (Avg.)	
Throwpower	GM9535P	12 – 15 inches	

Cold Rolled Steel Lab Panels, Zinc Phosphate Pretreatment. 0.8 mils Average Film Thickness, Cure 20 Minutes @ 350°F

Property	Substrate / Pretreatment	Salt Spray* 1000 Hours	20 Cycle** Scab
Corrosion Resistance	CRS/Zinc Phos/Non-Chrome	< 1 mm	2 – 3 mm
	CRS/Iron Phos/Non-Chrome	2 – 4 mm	3 – 5 mm

Cold Rolled Steel Lab Panels

(Average Total Scribe Creep), * Salt Spray - ASTM B117
**Actual fastener testing uses 40 cyclic corrosion – GM9540
0.8 mils Average Film Thickness, Cure 20 Minutes @ 350°F

Commercial Uses

- Automotive Fasteners
- Construction Fasteners
- Fasteners Requiring Torque Properties

Application Data

Standard Bake: 20 Minutes at 350°F Metal Temperature, depending on desired performance

properties. Higher temperatures may be required for specific properties.

VOC: < 0.6 lbs. per gallon minus water (as supplied)

HAPs: None Heavy Metals: None

Note: Cationic epoxy technologies are not color stable.

The technical data presented in this bulletin is based upon information believed to be currently accurate. However, no guarantees of accuracy, comprehensiveness, or performance are given or implied. Continuous improvements in coatings technology may cause future technical data to vary from what is in the bulletin. Contact your PPG representative for the most up-to-date information.