PPG Industrial Coatings

POWERCRON® 8000 Black

PRODUCT DATA

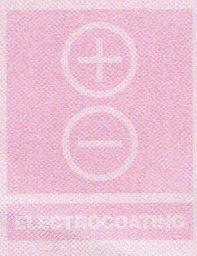
POWERCRON 8000 FEATURES

POWERCRON 8000 is PPG's eighth generation cationic epoxy electrocoat technology. Features include:

- Lower applied cost
  - Reduced weight loss
  - Reduced cure temperature
  - Improved rinseability
- Excellent edge coverage, particularly on sharp edges
- State-of-the-art corrosion resistance
- Lead-free formulation
  - Improved corrosion resistance
  - Lead-free film
  - Lead-free effluent
- Reduced emissions
  - Virtually solvent-free
  - VOC less than 0.4 lbs/gal.
  - HAPs-free
  - Reduced cure by-products
- Commercial Uses
  - Agriculture & Construction
  - Automotive Parts & Accessories
  - Compressors
  - Computer Parts
  - Fasteners
  - Heavy Duty Trucks
  - Marine Engines
  - Switchgear
  - Transformers
- Award Winning Technology

R&D 100

GREEN CHEMISTRY CHALLENGE



PRODUCT DESCRIPTION

POWERCRON 8000 is the most cost-efficient and highest performance cationic epoxy electrocoat available. This product demonstrates several improvements over previous generations including improved transfer efficiency, reduced cure temperature, excellent edge coverage, excellent corrosion resistance without the use of heavy metals, and reduced volatile emissions.

POWERCRON 8000 exhibits one of the highest transfer efficiencies available in a high performance cationic epoxy electrocoat. This was achieved through a reduction in the amount of cure by-products from the coating (weight loss) during the curing process. Applied cost savings of 5-10% or higher are realized, in addition to a reduction in oven emissions.

POWERCRON 8000 cures 25-75°F lower metal temperature than previous products, resulting in energy and productivity savings.

POWERCRON 8000 was engineered to provide excellent edge coverage, particularly on sharp edges, by the development of a unique polymer that controls the flow characteristics of the coating.

POWERCRON 8000 was formulated to provide superior corrosion resistance without the use of heavy metals, particularly lead. The resulting product is free of heavy metals in the coating film and in any effluent that is discharged from the system.

POWERCRON 8000 has a low organic solvent content, resulting in a Volatile Organic Compound (VOC) content of less than 0.4 pounds per gallon. In addition, this product contains no Hazardous Air Pollutants (HAPs).

POWERCRON 8000 is available in an easy to use, single component formulation. PPG makes use of propriety resin technology to deliver environmental advantages, exceptional performance, and automotive approvals in a single component, user friendly, feed package.

APPROVALS

	Specification No.	Status
Agriculture and Construction		
• Caterpillar	1E2732	Approved
• John Deere	JDM F12, JDH 612,	Qualified
	HOR 10007	Qualified
Automotive Parts and Accessories		
• DaimlerChrysler	MS-PB45-1, MS-PB45-2	Approved
• Ford	WSB-M64J28, WSB-M64J36	Approved
	WSS-M64J38, WSS-M64JJT39	Approved
	WSB-M64J41	Approved
• General Motors	9984120	Approved
• Delphi	DX551400	Approved
• Foreign-Domestic	Approved at specific locations	
Military	MIL-P-53084	Approved
Truck/Bus		
• PACCAR	CS-0031, CS-0030	Approved
• Navistar	CEMS G-5	
Underwriters Laboratories Inc.	UL1332	Recognized

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APPLICATION DATA

Bake: Standard bake is 20 minutes at 325°F (163°C) metal temperature. Higher temperatures may be required for specific properties.

Weight Loss: 7% at 10 minutes at 325°F (163°C) metal temperature.

VOC: < 0.4 lbs per gallon minus water (as supplied)

HAPs: None

Heavy Metals: None

FILM PROPERTIES

Property	Test Method	Performance
Film Thickness	---	0.4 - 1.2 Mils
Gloss - 60 Degree	ASTM D523-89	50 - 70
Pencil Hardness	ASTM D3363-00	2H Minimum
Direct Impact	ASTM D2794-93	100 in-lb Minimum
Reverse Impact	ASTM D2794-93	60 in-lb Minimum
Cross-Hatch Adhesion	ASTM D3359-97	4B - 5B
Humidity	ASTM D1735-99	1000 Hours Minimum
Water Immersion	ASTM D870-97	250 Hours Minimum
Gravelometer	GM 9508P	6 Minimum
Rust Spot	GM 9632P	40 Rust Spot (Avg.)
Throwpower	GM 9535P	12 - 15 Inches

Cold Rolled Steel Lab Panels, Zinc Phosphate Pretreatment
0.6 Mil Average Film Thickness, Cure 10 Minutes @ 325°F

CORROSION RESISTANCE

Substrate / Pretreatment	Salt Spray* 500 Hours	Salt Spray* 1000 Hours	20 Cycle** Scab
CRS/Zinc Phos/Chrome	0 mm	0 - 1 mm	0 - 1 mm
CRS/Zinc Phos/Non-Chrome	0 mm	0 - 1 mm	0 - 1 mm
CRS/Zinc Phos/DI Water	0 - 1 mm	1 - 4 mm	1 - 4 mm
CRS/Iron Phos/Chrome	0 - 1 mm	2 - 4 mm	2 - 4 mm
CRS/Iron Phos/Non-Chrome	1 - 3 mm	2 - 5 mm	2 - 5 mm
CRS/Iron Phos/DI Water	2 - 5 mm	6 - 14 mm	10 - 15 mm
CRS/Untreated	5 - 10 mm	5 - 15 mm	5 - 15 mm
Galvanized/Zinc Phos/Chrome	-----	-----	0 - 1 mm

(Average Total Scribe Creep), * Salt Spray - ASTM B117-97
** Cycle Scab - GM9511P, Cold Rolled Steel Lab Panels
Cure 10 Minutes @ 325°F

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