



POWDER COATING

Technical Data Sheet

Highlights

PPG's Envirocyl™ and Envirocron™ powder coatings are aesthetically pleasing, produce a durable uniform finish and can be custom formulated with finishes from high gloss to low gloss, and in a variety of textures.

PPG's "World Class" Ultradurable Polyester Powder Coatings provide a combination of good physical and chemical resistance properties with excellent resistance to outdoor weathering. This extensive line of Polyester Powders is manufactured to meet the increasing requirement demands of the appliance and industrial markets. These sophisticated Polyesters are the solution to your smoothness, low-bake, durability and physical property requirements. An unsurpassed application development program enables consistently friendly use on a variety of substrates.

- Available in a wide range of colors and glosses
- Excellent exterior durability
- Good chemical resistance

PRODUCT APPROVALS

UL Approved

Specifically formulated to meet the requirements of Caterpillar 1E1950A direct to metal or to 1E1952A with a Caterpillar approved primer 1E2732A, PCF30123.

TEST CONDITIONS

Property	Test method	Value
Substrate		Pretreated steel panels
Recommended Thickness	ASTM D 7091	3.0 - 3.5 mils
Curing Conditions	Metal Temperature	20 min @ 375 °F

Over Caterpillar approved primer, film properties were determined at 1.50 - 1.77 mils (38 - 45 microns). Minimum / Maximum topcoat DFT of 1.5 - 6.0 mils (25- 150 microns). Minimum / Maximum system DFT of 2.5 - 8.0 mils (64 - 200 microns).

PRODUCT PROPERTIES

Property	Test method	Value
Appearance	Visual Inspection	Smooth
Gloss 60°	ASTM D 523	90 Minimum
Gloss 20°		80 Minimum
Adhesion	ASTM D 3359	100% (5B Pass)
Hardness	ASTM D 3363	3H Pencil (Eagle)
Impact - Direct	ASTM D 2794	40 in-lbs
Conical Mandrel	ASTM D 522	1/8" Mandrel - No cracking
Salt spray	ASTM B 117	1000 hrs
		<1/8" scribe creep No blisters
Humidity	ASTM D 1735	1000 hrs
		<1/16" scribe creep No blisters
Specific gravity	Calculated	1.42 ± .05
Theoretical coverage	Calculated	135 ft²/lbs at 1.0 mil
		27.7 m²/kg at 25 µm





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CURING WINDOW* (object temperature)

See Cure Curve PCT-048

20-90 min @ 350 °F (177 °C)

12-60 min @ 375 °F (191 °C)

6-40 min @ 400 °F (204 °C)

*Temperature and time to be adjusted to accomplish proper curing of coating. This can be achieved using infrared, convection, or combination ovens.

STORAGE STABILITY

24 months at 80 °F maximum

Materials need to be stored in sealed plastic bags under dry and cool conditions. Do not expose to sunlight.

PPG recommends that all material be used in FIFO order (first in - first out). Materials that exceed the recommended shelf life should be tested prior to use.

SUBSTRATE PREPARATION

Surface preparation should be chosen according to the type of substrate and required performance.

The coater should test the suitability of the surface preparation before the application using appropriate test methods.

APPLICATION RECOMMENDATIONS

Electrostatic Spray

Coating can be applied with automatic and manual devices.

Substrate should be correctly cleaned before use.

Do not mix this product with other powder coatings.

Color and finish influenced by film thickness: a good control of the film thickness will help the consistency of the aspect.

HEALTH AND SAFETY

For comprehensive Health, Safety, and Environmental advice, please refer to the relevant Safety Data Sheets, and information printed on the product label.

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