ENVIROCRON® Powder Coat

Epoxy

PCMT80114 - OGF Tank White

POWDER COATING

Technical Data Sheet

Highlights

PPG's Enviracryl™ 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" Epoxy Powder Coatings provide a combination of good physical and chemical resistance properties. This extensive line of Epoxy Powders is manufactured to meet the increasing requirement demands of the automotive and industrial markets. These sophisticated Epoxies 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 chemical resistance
- Low cure capabilities

COMMERCIAL USES

Designed for water and chemical tanks

PRODUCT APPROVALS

NSF 61 Compliant

PRODUCT CHARACTERISTICS

Formulated for outgassing (OGF) properties for use over cast or shotblasted metals
Excellent resistance to a wide range of chemicals including pH range of 1 to 14 at ambient temperature
Excellent abrasion, flexibility, impact and corrosion properties
Excellent exterior durability when topcoated with ultradurable polyester
Highly crosslinked novolac phenolic epoxy coating designed for use in extreme environments such as tanks and pipes.

TEST CONDITIONS

Property	Test method	Value
Substrate		Pretreated steel panels
Recommended Thickness	ASTM D 7091	5.0 - 10.0 mils
Curing Conditions	Metal Temperature	10 min @ 350 °F

Recommended film thickness 5-10 mils above blast profile.

PRODUCT PROPERTIES

Property	Test method	Value
Appearance	Visual Inspection	Smooth
Gloss 60°	ASTM D 523	80 Minimum
Adhesion	ASTM D 4541	> 2500 psi
Hardness	ASTM D 3363	5H Pencil (Eagle)
Impact - Direct	ASTM D 2794	160 in-lbs
Impact - Reverse	ASTM D 2794	160 in-lbs
Conical Mandrel	ASTM D 522	1/8" Mandrel
Gravelometer	ASTM D 3170	70psi, ambient and frozen, 6A rating
Taber Abrasion	ASTM D 4060 CS10, 1000g, 1000 cycles	60 mg max weight loss
Falling Sand Abrasion	ASTM D 968	>70 L/mil
Scrape Adhesion	ASTM D 2197	10 passes of 12.4 kg

Property	Test method	Value
Salt spray	ASTM B 117	<1/4" creep @ 1008 hrs for iron phosphate steel <1/4" creep @ 3528 hrs for blasted CRS <1/4" creep @ 4032 hrs for zinc phosphate steel
Humidity	ASTM D 4585 @ 38° C	100 °F, 100% RH - 1000+ hrs
Heat Resistance	Dry, 300 °F Immersed in water, 200 °F	Pass
Dielectric Strength	ASTM D 3755, Type 1 Electrode 12kV DC with a 0.5mA limiting current (Imax) 20 second ramp 20 second dwell 2 second descend	7-10 mils – 12 kV
Specific gravity	Calculated	1.67 ± .05
Theoretical coverage	Calculated	115 ft²/lbs at 1.0 mil 23.6 m²/kg at 25 µm

CURING WINDOW* (object temperature)

See Cure Curve PCM-001

20 min @ 300 °F (149 °C)
15 min @ 325 °F (163 °C)
10 min @ 350 °F (177 °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

12 months at 77 °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.
If blasting is being used then recommend to blast to Sa2.5 (ISO 8501-01) or Near White SP10 (SSPC-Vis 1) with blast profile (Ra) of 35-50 microns (1.5-2.0 mils).
Check water soluble salts in mineral abrasive using ISO 11127-6. Should not be above 250 us/cm (conductivity).

APPLICATION RECOMMENDATIONS

Electrostatic Spray
The maximum film thickness is 10.0 mils.
Maximum limit of water soluble salt on steel of 20mg/m² (as mixed salt) or 4 us/cm (conductivity V=15ml) per ISO 8502-6 (Bresle patch method) if tank will hold distilled or deionized water. For all other cargoes then maximun limit of 50mg/m² or 10 us/cm.
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.
Check for complete coverage using a holiday detector (ASTM G62 or D5162). Pay particular attention to sharp edges and corners.

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.

www.ppg.com/industrialcoatings and powdercoatings.ppg.com