



POWDER COATING

Technical Data Sheet

Highlights

PPG ENVIROCRON® LUM powder coating is a proprietary and patent-pending breakthrough technology designed to reflect light back to its source. This innovative single layer solution combines the safety benefits of retroreflectivity with the strength, durability and sustainability of powder coating.

Available in a wide range of custom colors, PPG Envirocron LUM is formulated to create a smooth, impact and mar resistant surface capable of withstanding harsh exterior environments.

- Available in a wide range of colors
- Excellent chemical resistance
- Exterior durability

PRODUCT CHARACTERISTICS

Patent pending technology
Embedded glass beads provide retroreflective properties
Reflects light to aid in nighttime visibility
Excellent mar and scratch resistance

TEST CONDITIONS

Property	Test method	Value
Substrate		Pretreated steel panels
Recommended Thickness	ASTM D 7091	2.5 - 4.0 mils
Curing Conditions	Metal Temperature	10 min @ 400 °F

PRODUCT PROPERTIES

Property	Test method	Value
Appearance	Visual Inspection	Smooth
Gloss 60°	ASTM D 523	13 - 20
Coefficient of Retro Reflectivity (Ra)	ASTM E 1709	5 cd/lux/m2 minimum
Adhesion	ASTM D 3359	100% (5B Pass)
Hardness	ASTM D 3363	2H Pencil (Eagle)
Impact - Direct	ASTM D 2794	40 in-lbs - No flaking
Conical Mandrel	ASTM D 522	1/4" Mandrel - No flaking
Salt spray	ASTM B 117	1000 hrs
Humidity	ASTM D 4585 @ 38° C	100 °F, 100% RH - 1000+ hrs
Specific gravity	Calculated	1.76 ± .05
Theoretical coverage	Calculated	109 ft²/lbs at 1.0 mil 22.4 m²/kg at 25 µm





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CURING WINDOW* (object temperature)

See Cure Curve PCU-028

30 min @ 360 °F (182 °C)
15-24 min @ 380 °F (193 °C)
10-19 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 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.

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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