



ZINC RICH -POLYESTER POWDER - TECHNICAL DATA SHEET

POWDER COATING – ZINC RICH POLYESTER (PRIMER)

Supplier: Lexco International Group (Pvt) Ltd - China

Color / RAL: RAL 7016 (Anthracite Grey)

Finish: Semi-Gloss

Product Type / Chemistry: Zinc Rich Polyester (Primer)

INTRODUCTION

The FH-GP Series is a thermoset powder coating formulated with saturated polyester resins, optimized for exterior use. This coating offers excellent flow-out properties and is available in satin or glossy finishes. It demonstrates exceptional resistance to ultraviolet (UV) light and atmospheric aging, ensuring high durability and decorative appeal in outdoor environments. Common applications include:

- Terminal Enclosures
- Cable Trays/ Trucking
- Feeder Pillars
- Wall Mounting Enclosures (Outdoor)
- Outdoor Switchboards
- Fire Cabinets

GLOSS AND COLOR RANGE

- **Gloss Levels:** 1%–99%
- **Color Range:** A wide variety of colors is available. Certain colors may require technical approval.
- **Color Pattern** – Gloss

APPLICATION SCHEDULE

Application Method: Electrostatic spraying gun with a negative tension of 60–80 kV.

Curing Schedule:

- Standard: 10 minutes at 200°C (metal temperature)
- Custom: As per customer requirements

Optimal Film Thickness: 60–90 µm for smooth powder coating

POWDER PROPERTIES

Hydroxyl Content: Less than 10%

Specific Gravity: 1.2–1.5 g/cm³ (varies with color)

Particle Size Distribution (Laser Particle Size Analyzer):

- < 5% above 100 µm
- 50–65% above 32 µm

Average Particle Size: 30–40 µm

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COATING PROPERTIES

Properties tested on 0.8 mm gauge decreased galvanized steel:

Flow Out: Good

Gloss (ISO 2813, 60°): >1%

Adhesion (ISO 2409): GT = 0

Pencil Hardness (ASTM D3363): H-2H

Direct Impact Resistance (ASTM D2794):

- 50 kg·cm (30 kg·cm for smooth matte finishes with less than 10% gloss)

Salt Spray Resistance (ASTM B117, 500 hours): No blistering; maximum undercutting of 1 mm

Humidity Resistance (ASTM D2247, 1000 hours): No blistering or adhesion loss

Chemical Resistance: Film remains unchanged after 48-hour contact with coating at ambient temperature

Weather Resistance (ASTM D4329, 500 hours): No peeling; slight loss of gloss

SUBSTRATES AND PRE-TREATMENT

To achieve optimal anti-corrosion properties, chemical pretreatment is recommended before powder coating application.

Ferrous Metals (e.g., cold-rolled steel, cast iron): Iron or zinc phosphating

Zinc Surfaces (e.g., galvanized steel, zinc alloy): Chromating or zinc phosphating

Aluminum Alloys: Chromating

STORAGE

Store under dry conditions with good ventilation at a temperature **not exceeding 25°C and humidity below 60%**.

Storage Period: Recommended not to exceed 6 months. After 6 months, powders may retain free-flowing properties but should be checked for optimal performance.

Protect from excessive heat, humidity, water, and contaminants such as dust or foreign powders.

Store leftover powder in a cool, dry area and avoid prolonged exposure to air to prevent deterioration due to moisture.

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DISCLAIMER

The information contained in this TDS is based on laboratory testing and is provided as guidance. Actual performance may vary depending on substrate condition, pretreatment, application parameters, curing conditions, and service environment.

(RECPL-QA-F-12) – DPL LANKA HOLDINGS (PVT) LTD

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