



EPOXY-POLYESTER POWDER - TECHNICAL DATA SHEET

EPOXY-POLYESTER / HYBRID POWDER COATING

Product Name: PP RAL 7032 Texture

Supplier: Lexco International Group Pty Ltd (China)

Color / RAL: RAL 7032 – Pebble Grey

Finish: Textured

Product Type / Chemistry: Epoxy Polyester (EP) Powder Coating

Recommended Use: Indoor durable powder coating for metal enclosures / fabricated steel components (architectural & industrial use)

INTRODUCTION

Hybrid powder coating is a thermosetting coating formulated from epoxy polyester resins. It provides excellent smooth, glossy finishes with superior flow-out characteristics. The coating demonstrates exceptional overbake yellowing resistance and mechanical properties, making it suitable for a wide range of indoor applications such as:

- Domestic appliances
- Home and office furniture
- Shelving
- Machinery
- Ceiling panels
- Fans
- Cabinets
- Switchboards

Additionally, texture finishes are available under the FH-GH specification.

GLOSS AND COLOR RANGE

- **Gloss Levels:** 5%–99% (or higher, based on requirements)
- **Color Range:** RAL 7032, RAL 7035, RAL 9010, RAL 9005, RAL 2008, and other colors available upon customer request.
- **Colour Pattern** – Texture, Gloss, Matte

APPLICATION SCHEDULE

- **Application Method:** Electrostatic spraying devices
- **Curing Schedule:**

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Doc No:	REC/68	Date Issued:	2025/01/01
Revision No./Date:	00 / 0000 – 00 – 00	Page No:	Page 1 of 3



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- Standard: 15 minutes at 180°C (metal temperature)
- Custom: As per customer requirements
- **Optimal Film Thickness:**
 - Smooth coating: 60–90 µm
 - Texture coating: 90–130 µm
 - Hammer texture: 100–300 µm

POWDER PROPERTIES

- **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

COATING PROPERTIES

- **Gloss (ISO 2813, 60°):** 5%–99%
- **Adhesion (ISO 2409):** GT = 0
- **Pencil Hardness (ASTM D3363):** H–2H
- **Direct Impact Resistance (ASTM D2794):** >50 kg·cm
- **Salt Spray Resistance (ASTM B117):**
 - Smooth glossy: 1,000 hours
 - Wrinkle: 800 hours
 - Maximum undercutting: 1 mm
 - No blistering or adhesion loss

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

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Revision No./Date:	00 / 0000 – 00 – 00	Page No:	Page 2 of 3



EPOXY-POLYESTER POWDER - TECHNICAL DATA SHEET

STORAGE

- Store under dry conditions with good ventilation at a temperature not exceeding 30°C.
- Recommended storage duration: Up to 12 months.
 - If storage exceeds 12 months, powders may still retain optimal properties but should be checked for free-flowing characteristics.
- Protect from excessive heat, humidity, water, and contaminants (e.g., dust, dirt, or foreign powders).
- Leftover powder should be stored in a cool, dry area and kept sealed to prevent exposure to air and moisture.

Note: Powder properties may deteriorate if exposed to air or moisture for extended periods. Proper storage ensures optimal performance.

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.

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Doc No:	REC/68	Date Issued:	2025/01/01
Revision No./Date:	00 / 0000 – 00 – 00	Page No:	Page 3 of 3