

REAFREE® 8580

POWDER COATINGS / PRIMID

TECHNICAL DATA SHEET

Product Application details

Saturated carboxylated polyester for combination with β -Hydroxyalkylamide type hardeners. Suitable for the formulation of outdoor durable and protective thermosetting powders for electrostatic application. For high gloss systems with improved flow and degassing properties. Gas oven stabilised. TMA free type.

Performance Benefits

- Good flow and degassing properties.
- High gloss.
- Good mechanical properties.
- Excellent outdoor durability
- Good yellowing resistance curing with direct-fired gas ovens.

Polymer Type

- Saturated Carboxylated Polyester Resin

Sales Specifications

Colour (50%), (ASTM D-1544)	2 max
Acid value, mg KOH/g (ASTM D-1639)	30 - 36
Viscosity 165°C, Pa.s (ICI – DIN 53229)	15 - 25

Other Characteristics¹

Appearance	Pale granules
Glass Transition T, °C (DSC - Tg)	approx 61

¹ The data provided for these properties are typical values, intended only as guides, and should not be construed as sales specifications

Curing Conditions 15 minutes at 160°C (object temperature)

Recommended Mixing Ratio

REAFREE 8580 / PRIMID XL-552⁽¹⁾ : 95/5
REAFREE 8580 / PRIMID QM-1260⁽¹⁾ : 94,5/5,5
⁽¹⁾PRIMID is a trade mark of EMS-Chemie AG

Starting Formulation

REAFREE 8580	564
Titanium Dioxide ⁽¹⁾	310
β -Hydroxyalkylamide ⁽²⁾	29
REAFREE F3300-R10	75
Benzoin	2
CRAYVALLAC PC	10
CRAYVALLAC WN-1265	10

Formulation Guidelines

- (1) Kronos 2160
(2) Primid XL-552 (EMS Chemie)

Application / Extrusion Conditions

Extruder:	BUSS PCS-30
Torque:	40%
Speed:	200 rpm
Extrusion temperature:	105°C
Spraying Gun:	GEMA PG 1-B
Application voltage:	60-80 Kv
Test substrate:	Degreased aluminium 0.8mm

Coating Properties

Film thickness	60-80 microns
Gloss 60°, (ASTM D-523-60E)	Over 90%
Cupping test, (DIN 53156)	Over 8 mm
Direct Impact, (ASTM D-2794)	Over 80 Kg.cm
Reverse Impact, (ASTM D-2794)	Over 80 Kg.cm
Conical mandrel, (ASTM D-522)	100%
Adhesion, (DIN 53151)	Gt0

Product Safety

Please refer to the corresponding Safety Data Sheet.

Delivery form

Granules. White opaque polyethylene bags of 25 Kg. One Ton pallet shrink – wrapped.

Storage & Handling

The resin in its original unopened bags is stable for more than three years, stored in a dry place at temperature below 30°C. Avoid direct sunlight.

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