

REAFREE® 8589-T

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 tribochargeable thermosetting powders for electrostatic application.
For high gloss systems with improved flow, degassing properties and exterior durability.
Gas oven stabilised.
TMA free type.

Performance Benefits

- Excellent flow and degassing properties.
- High gloss.
- Good mechanical properties.
- Improved outdoor durability versus standard 95/5 resins.
- Good yellowing resistance curing with direct-fired gas ovens.
- Tribochargeable.

Polymer Type

- Saturated Carboxylated Polyester Resin

Sales Specifications

Colour (50%), (ASTM D-1544)	2 max
Acid value, mg KOH/g (ASTM D-1639)	28 - 34
Viscosity 165°C, Pa.s (ICI – DIN 53229)	14 - 26

Other Characteristics¹

Appearance	Pale granules
Glass Transition T, °C (DSC - Tg)	approx 58

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

Curing Conditions

20 minutes at 160°C or 15 minutes at 180°C (object temperature)

Recommended Mixing Ratio

REAFREE 8589-T / PRIMID XL-552⁽¹⁾ : 95/5
REAFREE 8589-T / PRIMID QM-1260⁽¹⁾ : 94,5/5,5
⁽¹⁾PRIMID is a trade mark of EMS-Chemie AG

Starting Formulation

REAFREE 8589-T	564
Titanium Dioxide ⁽¹⁾	310
β -Hydroxyalkylamide ⁽²⁾	29
REAFREE F3300-R10	75
Benzoin	2
CRAYVALLAC PC	10
CRAYVALLAC WN-1265	10

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

Formulation Guidelines

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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