

TECHNICAL DATA SHEET

REAFREE® 8300-T

Powder Resins / Saturated Carboxylated Polyester / β -Hydroxyalkylamide

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 and triboelectric applications. For high gloss systems with low cross-linker demand. For matt powder coatings by dry blending. Gas oven stabilised. TMA free type.

SALES SPECIFICATIONS

	CHARACTERISTICS	METHODS
Acid value	24-28 mg KOH/g	ASTM D-1639
Viscosity (Cone and plate - 165°C)	10-30 Pa.s	DIN 53229
Color (50%)	2 max Gardner	ASTM D-1544

OTHER CHARACTERISTICS¹

	CHARACTERISTICS	METHODS
Appearance	Pale granules	
Glass transition temperature (Tg)	approx 58 °C	DSC

¹The 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 180°C (object temperature)

RECOMMENDED MIXING RATIO

REAFREE® 8300-T / PRIMID XL-552⁽¹⁾: 96,5/3,5

REAFREE® 8300-T / PRIMID QM-1260⁽¹⁾: 96/4

⁽¹⁾ EMS-Chemie AG

MARKET & APPLICATIONS

Coatings & Inks

- Industrial Coating
 - General Industry
 - Metal Exterior - Powder

PERFORMANCE BENEFITS

- Excellent levelling. High gloss. Good degassing properties.
- For matt finishes by dry blending with REAFREE 8180-T and 8780-T.
- Good mechanical properties.
- Excellent outdoor durability.
- Good yellowing resistance curing with direct-fired gas ovens.
- Tribochargeable.

REAFREE® 8300-T

FORMULATION GUIDELINES

STARTING FORMULATION	
REAFREE® 8300-T	578,4
Titanium Dioxide ⁽¹⁾	390,0
β-Hydroxyalkylamide ⁽²⁾	21,6
REAFREE® F3300-A15	33,0
Benzoin	2,0

⁽¹⁾ Kronos® 2160

⁽²⁾ Primid® XL-552 (EMS Chemie)

APPLICATION / EXTRUSION CONDITIONS

CHARACTERISTICS	
Extruder	BUSS PCS-30
Spraying gun	GEMA PG 1-B
Torque	40 %
Extrusion speed	200 rpm
Application voltage	60-80 kV
Test substrate (Degreased steel)	1 mm
Extrusion temperature	105 °C

COATING PROPERTIES

	CHARACTERISTICS	METHODS
Film thickness	60-80 microns	
Gloss (60°)	Over 90 %	
Cupping test	Over 8 mm	DIN 53156
Direct impact	Over 80 kg.cm	ASTM D-2794
Reverse impact	Over 80 kg.cm	ASTM D-2794
Conical mandrel	100 %	ASTM D-522
Adhesion	Gt0	DIN 53151

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 AND 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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