

TECHNICAL DATA SHEET

REAFREE® 8304-T

Powder Resins / Saturated Carboxylated Polyester / β -Hydroxyalkylamide

PRODUCT APPLICATION DETAILS

Saturated carboxylated polyester for combination with β -Hydroxyalkylamide and Triglycidylisocyanurate 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	18-22 mg KOH/g	ASTM D-1639
Viscosity (Cone and plate - 165°C)	20-40 Pa.s	DIN 53229
Color (50%)	2 max Gardner	ASTM D-1544

OTHER CHARACTERISTICS¹

	CHARACTERISTICS	METHODS
Appearance	Pale granules	
Glass transition temperature (T _g)	approx 61 °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

PRIMID⁽¹⁾: 15 minutes at 180°C (object temperature)

PRIMID⁽¹⁾: 10 minutes at 190°C (object temperature)

TGIC: 15 minutes at 200°C (object temperature)

⁽¹⁾ EMS-Chemie AG

RECOMMENDED MIXING RATIO

REAFREE® 8304-T / PRIMID XL-552⁽¹⁾: 97/3

REAFREE® 8304-T / TGIC: 96/4

⁽¹⁾ EMS-Chemie AG

MARKET & APPLICATIONS

Coatings & Inks

- Industrial Coating
 - General Industry
 - Metal Exterior - Powder
 - Metal Interior - Powder
 - Protective Coating

PERFORMANCE BENEFITS

- Excellent levelling. High gloss. Good degassing properties.
- For matt finishes by dry blending with REAFREE 8784-T and 8184-T.
- Good mechanical properties.
- Excellent outdoor durability.
- Good yellowing resistance curing with direct-fired gas ovens.
- Tribochargeable.

REAFREE® 8304-T

FORMULATION GUIDELINES

STARTING FORMULATION			
	A	B	C
REAFREE® 8304-T	608	-	-
REAFREE® 8784-T	-	583	-
REAFREE® 8184-T	-	-	564
Titanium Dioxide ⁽¹⁾	319	317	317
β-Hydroxyalkylamide ⁽²⁾	19	44	63
CRAYVALLAC WN-1495	10	10	10
Flow modifier ⁽³⁾	10	10	10
Benzoin	2	2	2
Barium sulfate	32	34	34

⁽¹⁾ Kronos® 2160

⁽²⁾ Primid® XL-552 (EMS Chemie)

⁽³⁾ Resiflow PV-88 (Worlée)

DRY-blend paints A/B: 50/50

DRY-blend paints A/C: 50/50

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°)	approx. 28 (A/B) approx.20 (A/C) %	
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.

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ARKEMA

REAFREE® 8304-T

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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