

## TECHNICAL DATA SHEET

# REAFREE® 8304-T

Powder Resins / Saturated Carboxylated Polyester /  $\beta$ -Hydroxyalkylamide

### PRODUCT APPLICATION DETAILS

Saturated carboxylated polyester for combination with  $\beta$ -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 CHARACTERISTICS<sup>1</sup>

	CHARACTERISTICS	METHODS
Appearance	Pale granules	
Glass transition temperature (T <sub>g</sub> )	approx 61 °C	DSC

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

### CURING CONDITIONS

PRIMID<sup>(1)</sup>: 15 minutes at 180°C (object temperature)

PRIMID<sup>(1)</sup>: 10 minutes at 190°C (object temperature)

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

<sup>(1)</sup> EMS-Chemie AG

### RECOMMENDED MIXING RATIO

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

REAFREE® 8304-T / TGIC: 96/4

<sup>(1)</sup> EMS-Chemie AG

### MARKET

#### 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 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 <sup>(1)</sup>	319	317	317
β-Hydroxyalkylamide <sup>(2)</sup>	19	44	63
CRAYVALLAC WN-1495	10	10	10
Flow modifier <sup>(3)</sup>	10	10	10
Benzoin	2	2	2
Barium sulfate	32	34	34

<sup>(1)</sup> Kronos® 2160

<sup>(2)</sup> Primid® XL-552 (EMS Chemie)

<sup>(3)</sup> 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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## 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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