

## TECHNICAL DATA SHEET

# REAFREE® 8563-T

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



Low Temperature Cure

### PRODUCT APPLICATION DETAILS

Saturated carboxylated polyester for combination with  $\beta$ -Hydroxyalkylamide type hardeners. Suitable for the formulation of outdoor durable and protective tribochargeable thermosetting powders for electrostatic application. Especially designed for low temperature, good flow applications.

### SALES SPECIFICATIONS

	CHARACTERISTICS	METHODS
Acid value	33-38 mg KOH/g	ASTM D-1639
Viscosity (Cone and plate - 165°C)	20-40 Pa.s	DIN 53229
Color (50%)	3 max Gardner	ASTM D-1544

### OTHER CHARACTERISTICS<sup>1</sup>

	CHARACTERISTICS	METHODS
Appearance	Pale granules	
Glass transition temperature (T <sub>g</sub> )	approx.57 °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

10 minutes at 160°C (object temperature)  
20 minutes at 150°C (object temperature)

### RECOMMENDED MIXING RATIO

REAFREE 8563-T / PRIMID XL-552<sup>(1)</sup> : 95/5  
REAFREE 8563-T / PRIMID QM-1260<sup>(1)</sup> : 94,5/5,5  
<sup>(1)</sup>PRIMID is a trade mark of EMS-Chemie AG

### MARKET

#### Coatings & Inks

- Industrial Coating
  - General Industry
  - Metal Exterior - Powder
  - Wood Furniture
  - Powder Coating - Others

### PERFORMANCE BENEFITS

- Fast cure, low temperature cure.
- Excellent blooming resistance.
- Excellent mechanical properties.
- Excellent outdoor durability suitable for architectural powders
- High gloss, high resistance to cross-contamination.
- Good flow and degassing properties.
- Good yellowing resistance curing with direct-fired gas ovens.
- Tribochargeable.

# REAFREE® 8563-T

## FORMULATION GUIDELINES

STARTING FORMULATION	
<b>REAFREE® 8563-T</b>	564
Titanium Dioxide <sup>(1)</sup>	310
β-Hydroxyalkylamide <sup>(2)</sup>	29
<b>REAFREE® F3300-R10</b>	75
Benzoin	2
CRAYVALLAC® PC	10
CRAYVALLAC® WN-1265	10

<sup>(1)</sup> Kronos® 2160

<sup>(2)</sup> 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)	0.8 mm
Extrusion temperature	115 °C

## COATING PROPERTIES

	CHARACTERISTICS	METHODS
Film thickness	60-80 microns	
Gloss (60°)	Over 90 %	ASTM D-523-60E
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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