

## TECHNICAL DATA SHEET

# REAFREE® 8180-T

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

### PRODUCT APPLICATION DETAILS

Saturated carboxylated polyester for combination with  $\beta$ -Hydroxyalkylamide type hardeners. Suitable for the formulation of outdoor durable and protective thermosetting powders for electrostatic and tribochargeable applications. For matt powder coatings by dry blending. Gas oven stabilised.

### SALES SPECIFICATIONS

	CHARACTERISTICS	METHODS
Acid value	70-78 mg KOH/g	ASTM D-1639
Viscosity (Cone and plate - 165°C)	7-15 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 52 °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 180°C (object temperature)  
20 minutes at 160°C (object temperature)

### RECOMMENDED MIXING RATIO

REAFREE® 8180-T / PRIMID XL-552<sup>(1)</sup>: 90/10  
REAFREE® 8180-T / PRIMID QM-1260<sup>(1)</sup>: 88/12  
<sup>(1)</sup> EMS-Chemie AG

### MARKET & APPLICATIONS

#### Coatings & Inks

- Industrial Coating
  - General Industry
  - Metal Exterior - Powder

### PERFORMANCE BENEFITS

- Good flow.
- Different glosses by dry blend process with REAFREE 8300-T, alone or mixed with 8780-T.
- Good mechanical properties.
- Excellent outdoor durability.
- Good yellowing resistance.
- Tribochargeable.

# REAFREE® 8180-T

## FORMULATION GUIDELINES

	STARTING FORMULATION	
	A	B
REAFREE® 8180-T	265	-
REAFREE® 8780-T	265	-
REAFREE® 8300-T	-	569
Titanium Dioxide <sup>(1)</sup>	400	400
β-Hydroxyalkylamide <sup>(2)</sup>	60	21
Flow modifier <sup>(3)</sup>	8	8
Benzoin	2	2

<sup>(1)</sup> Kronos® 2160

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

<sup>(3)</sup> BYK® 360 P (Byk Chemie)

DRY-blend paints A/B: 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.30 %	
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.

**Arkema Coating Resins**  
410 Gregson Dr.  
Cary, NC 27511 – USA  
T +1 919 469 6700

**Arkema Química, S.A.U.**  
Ctra. Olzinelles, s/n  
E-08470 Sant Celoni (BCN)  
Spain  
T +34 938 674 000

**Arkema Chemical India Private Ltd.**  
D-43, Trans Thane Creek  
MIDC Industrial Area  
400706 Mumbai - India  
T +91 22 67377122

**Headquarters: Arkema France**  
51, Esplanade du Général de Gaulle  
92800 Puteaux – France  
T +33 (0)1 49 00 80 80

Disclaimer - Please consult Arkema's disclaimer regarding the use of Arkema's products on <https://www.arkema.com/global/en/products/product-safety/disclaimer/> which is incorporated herein by reference and made a part hereof.

Arkema France, a French société anonyme registered at the Trade and Companies Register of Nanterre under the number 319 632 790

[arkema.com](http://arkema.com)

**ARKEMA**