

## TECHNICAL DATA SHEET

# REAFREE® 6846

Powder Resins / Saturated Carboxylated Polyester / Epoxy



Low / Ultra Low Temperature Cure

### PRODUCT APPLICATION DETAILS

Saturated carboxylated polyester suitable for the formulation of decorative and protective thermosetting powders in combination with epoxy resins. Low temperature cure and very good performance over metal parts with dis-similar metal thicknesses.

### SALES SPECIFICATIONS

	CHARACTERISTICS	METHODS
Color (50%)	3 max Gardner	ASTM D-1544
Acid value	68-77 mg KOH/g	ASTM D-1639
Viscosity (Cone and plate - 165°C)	8-17 Pa.s	DIN 53229

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

	CHARACTERISTICS	METHODS
Appearance	Pale granules	
Glass transition temperature (T <sub>g</sub> )	approx.60 °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

15 minutes at 140°C (object temperature)

### RECOMMENDED MIXING RATIO

REAFREE® 6846 / Epoxy 50/50

### MARKET & APPLICATIONS

#### Coatings & Inks

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

### PERFORMANCE BENEFITS

- Good flow.
- High salt spray resistance.
- Good mechanical properties.
- Good recoatability.

# REAFREE® 6846

## FORMULATION GUIDELINES

STARTING FORMULATION	
REAFREE® 6846	360
Titanium Dioxide <sup>(1)</sup>	265
Epoxy resins <sup>(2)</sup>	360
Flow modifier <sup>(3)</sup>	10
Benzoin	5

<sup>(1)</sup> Kronos 2160

<sup>(2)</sup> Araldite GT-7004 (Huntsman) DER663 UE (Dow Chemical)

<sup>(3)</sup> BYK 360PO (Byk 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	80 °C

## COATING PROPERTIES

	CHARACTERISTICS	METHODS
Film thickness	60-80 microns	
Gloss (60°C)	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 %	DIN 53151
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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