

## TECHNICAL DATA SHEET

# REAFREE® 5406

*Powder Resins / Saturated Carboxylated Polyester / TGIC and  $\beta$ -Hydroxyalkylamide*

### PRODUCT APPLICATION DETAILS

Saturated carboxylated polyester for combination with Triglycidylisocyanurate or  $\beta$ -Hydroxyalkylamide type hardeners. Suitable for the formulation of outdoor SUPERDURABLE and protective thermosetting powders for electrostatic application. For mat paints by dry-blend with REAFREE 5706 or REAFREE 5002 Low TGIC or PRIMID<sup>(1)</sup> demand. TMA free type.

### SALES SPECIFICATIONS

	CHARACTERISTICS	METHODS
Acid value	18-22 mg KOH/g	ASTM D-1639
Viscosity (Cone and plate - 165°C)	18-32 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 (Tg)	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

TGIC: 15 minutes at 200°C (object temperature)  
PRIMID<sup>(1)</sup>: 20 minutes at 180°C (object temperature)

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

### RECOMMENDED MIXING RATIO

REAFREE® 5406 / TGIC: 96/4  
REAFREE® 5406 / PRIMID XL-552<sup>(1)</sup>: 97/3

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

### MARKET

#### Coatings & Inks

- Industrial Coating
  - Ace
  - General Industry
  - Metal Exterior - Powder

### PERFORMANCE BENEFITS

- Flexibility.
- Good flow.
- Good mechanical properties.
- Excellent outdoor durability.

# REAFREE® 5406

## FORMULATION GUIDELINES

	STARTING FORMULATION	
	A	B
REAFREE® 5406	-	647
REAFREE® 5706	633	-
Titanium Dioxide <sup>(1)</sup>	320	320
β-Hydroxyalkylamide <sup>(2)</sup>	34	20
Flow modifier <sup>(3)</sup>	10	10
Benzoin	3	3

<sup>(1)</sup> Kronos® 2160  
<sup>(2)</sup> Primid® XL-552 (EMS Chemie)  
<sup>(3)</sup> Byk® 360 P (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	105 °C

## COATING PROPERTIES

	CHARACTERISTICS	METHODS
Film thickness	60-80 microns	
Gloss (60°)	approx. 40 %	
Cupping test	Over 8 mm	DIN 53156
Direct impact	Over 75 kg.cm	ASTM D-2794
Reverse impact	Over 45 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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