

## TECHNICAL DATA SHEET

# REAFREE® 5080 MB

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



Low / Ultra Low Temperature Cure



Superdurable

### PRODUCT APPLICATION DETAILS

Saturated carboxylated polyester for combination with  $\beta$ -Hydroxyalkylamide or TGIC type hardeners. Suitable for the formulation of outdoor SUPERDURABLE and protective thermosetting powders for electrostatic application. For low gloss mat paints by dry-blend with REAFREE 5406 MB. High cross-linking density. TMA free type. Suitable for fast and low temperature.

### SALES SPECIFICATIONS

	CHARACTERISTICS	METHODS
Acid value	58-63 mg KOH/g	ASTM D-1639
Viscosity (Cone and plate - 165°C)	14-22 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 63 °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: 10 minutes at 180°C (object temperature) or 15-20 minutes at 160°C (object temperature)

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

### RECOMMENDED MIXING RATIO

REAFREE® 5080 MB / PRIMID XL-552<sup>0</sup>: 92/8  
(REAFREE 5080 MB / TGIC: 88/12)

### MARKET & APPLICATIONS

#### Coatings & Inks

- Industrial Coating
  - Metal Exterior - Powder

### PERFORMANCE BENEFITS

- Good flow.
- Good mechanical properties.
- Excellent outdoor durability.
- Enhanced resistance against blanching
- Fast cure, low temperature cure.

# REAFREE® 5080 MB

## FORMULATION GUIDELINES

	STARTING FORMULATION	
	A	B
<b>REAFREE® 5080 MB</b>	615	-
<b>REAFREE® 5406 MB</b>	-	648
Titanium Dioxide <sup>(1)</sup>	320	320
β-Hydroxyalkylamide <sup>(2)</sup>	53	20
Flow modifier <sup>(3)</sup>	10	10
Benzoin	2	2

<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 temperature	105 °C
Extrusion speed	200 rpm
Application voltage	60-80 kV
Test substrate (Degreased steel)	1 mm

## COATING PROPERTIES

	CHARACTERISTICS	METHODS
Film thickness	60-80 microns	
Gloss (60°)	approx 23 %	ASTM D-523-60E
Direct impact	Over 50 kg.cm	ASTM D-2794
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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