

## TECHNICAL DATA SHEET

# REAFREE® 4784-S

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 DURABLE and protective thermosetting powders for electrostatic application. High Tg resin TMA free type and gas oven stabilized.

### SALES SPECIFICATIONS

	CHARACTERISTICS	METHODS
Acid value	30-36 mg KOH/g	ASTM D-1639
Viscosity (Cone and plate - 165°C)	80-125 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 72 °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

12 minutes at 180°C (object temperature)

### RECOMMENDED MIXING RATIO

REAFREE® 4784-S / TGIC. 93/7

REAFREE® 4784-S / PRIMID XL-552: 95/5

### MARKET & APPLICATIONS

#### Coatings & Inks

- Industrial Coating
  - Metal Exterior - Powder

### PERFORMANCE BENEFITS

- Excellent texturing properties.
- Excellent outdoor durability.
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# REAFREE® 4784-S

## FORMULATION GUIDELINES

	STARTING FORMULATION	
	TGIC	PRIMID
<b>REAFREE® 4784-S</b>	620	633
Titanium Dioxide <sup>(1)</sup>	320	320
Triglycidylisocyanurate <sup>(2)</sup>	47	
β-Hydroxyalkylamide <sup>(3)</sup>		34
Flow modifier <sup>(4)</sup>	10	10
Benzoin	3	3

<sup>(1)</sup> Kronos® 2160

<sup>(2)</sup> Araldite PT-810 (Huntsman)/ Tepic (Nissan Chemical)

<sup>(3)</sup> Primid XL-552 (EMS Chemie)

<sup>(4)</sup> Byk 360 P (Byk Chemie)

## APPLICATION / EXTRUSION CONDITIONS

	CHARACTERISTICS
Extruder	BUSS PCS-30
Spraying gun	GEMA PG 1-B
Torque	40 %
Extrusion temperature	80 TGIC/105 PRIMID °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°)	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
Adhesion	Gt0	DIN 53151

## PRODUCT SAFETY

Please refer to the corresponding Safety Data Sheet.

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# REAFREE® 4784-S

## DELIVERY FORM

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.

## 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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