

## TECHNICAL DATA SHEET

# REAFREE® 8400-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 tribochargeable thermosetting powders for electrostatic application. For high gloss systems with improved flow and degassing properties. Low crosslinker demand. Gas oven stabilised. TMA free type.

### SALES SPECIFICATIONS

|                                    | CHARACTERISTICS | METHODS     |
|------------------------------------|-----------------|-------------|
| Acid value                         | 26-30 mg KOH/g  | ASTM D-1639 |
| Viscosity (Cone and plate - 165°C) | 18-30 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 58 °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)

### RECOMMENDED MIXING RATIO

REAFREE® 8400-T / PRIMID XL-552<sup>(1)</sup>: 96/4

REAFREE® 8400-T / PRIMID QM-1260<sup>(1)</sup>: 95,5/4,5

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

### MARKET & APPLICATIONS

#### Coatings & Inks

- Industrial Coating
  - General Industry
  - Metal Exterior - Powder

### PERFORMANCE BENEFITS

- Excellent flow and degassing properties.
- High gloss.
- Good mechanical properties.
- Excellent outdoor durability.
- Good yellowing resistance curing with direct-fired gas ovens and overbake.
- Tribochargeable.

# REAFREE® 8400-T

## FORMULATION GUIDELINES

| STARTING FORMULATION               |     |
|------------------------------------|-----|
| <b>REAFREE® 8400-T</b>             | 569 |
| Titanium Dioxide <sup>(1)</sup>    | 320 |
| β-Hydroxyalkylamide <sup>(2)</sup> | 24  |
| <b>REAFREE® F3300-B10</b>          | 75  |
| Benzoin                            | 2   |
| CRAYVALLAC PC                      | 10  |

<sup>(1)</sup> Kronos® 2160

<sup>(2)</sup> Primid® XL-552 (EMS 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°)     | Over 95 %                    |
| Cupping test    | Over 8 mm<br>DIN 53156       |
| Direct impact   | Over 80 kg.cm<br>ASTM D-2794 |
| Reverse impact  | Over 80 kg.cm<br>ASTM D-2794 |
| Conical mandrel | 100 %<br>ASTM D-522          |
| Adhesion        | Gt0<br>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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