

### TECHNICAL DATA SHEET

# REAFREE® 2776-TS

Powder Resins / Saturated Carboxylated Polyester/ Glycidyl Ester

#### PRODUCT APPLICATION DETAILS

Saturated carboxylated polyester suitable for the formulation of outdoor durable and protective tribochargeable thermosetting powders in combination with Araldite PT-910 or PT-912 type hardeners. Polyester for pigmented and clear coats. Gas oven stabilised. TMA free type.

#### **SALES SPECIFICATIONS**

|                                    | CHARACTERISTICS | METHODS     |
|------------------------------------|-----------------|-------------|
| Acid value                         | 23-28 mg KOH/g  | ASTM D-1639 |
| Viscosity (Cone and plate - 165°C) | 50-90 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 67 °C    | DSC     |

¹The data provided for these properties are typical values, intended only as guides, and should not be construed as sales specifications

#### **CURING CONDITIONS**

20 minutes at 170°C (object temperature)

## **RECOMMENDED MIXING RATIO**

REAFREE® 2776-TS / Araldite® PT-910<sup>(1)</sup>: 93/7 <sup>(1)</sup> Huntsman

#### **MARKET**

#### **Coatings & Inks**

- Industrial Coating
  - General Industry
  - Metal Exterior Powder

#### **PERFORMANCE BENEFITS**

- Good flow
- High gloss
- · Good mechanical properties
- Good outdoor durability
- Excellent over-bake resistance, also in gas oven applications
- Excellent transparency in clear coats
- Tribochargeable



## REAFREE® 2776-TS

#### **FORMULATION GUIDELINES**

|                                 | STARTING F | STARTING FORMULATION |  |
|---------------------------------|------------|----------------------|--|
|                                 | Paint      | Clear Coat           |  |
| REAFREE® 2776-TS                | 594        | 844                  |  |
| Titanium Dioxide <sup>(1)</sup> | 271        | -                    |  |
| Barium Sulfate <sup>(2)</sup>   | 53         | -                    |  |
| Araldite PT-910 <sup>(3)</sup>  | 44         | 71                   |  |
| REAFREE® F3300-A15              | 35         | -                    |  |
| REAFREE® F4700-B10              | -          | 80                   |  |
| Benzoin                         | 3          | 5                    |  |
|                                 |            |                      |  |

<sup>(1)</sup> Kronos® 2160

#### **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   | 60-80 microns |  |
| Gloss (60°)     | Over 94 %       |               |  |
| 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 %           | 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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<sup>(2)</sup> Minerals Girona

<sup>(3)</sup> Huntsman