

## TECHNICAL DATA SHEET

# REAFREE® 6499-TS

Powder Resins / Saturated Carboxylated Polyester / Epoxy

### PRODUCT APPLICATION DETAILS

Saturated carboxylated polyester suitable for the formulation of decorative and protective thermosetting tribochargeable powders in combination with epoxy resins. Gas oven stabilised. General purpose polyester. TMA free type.

### SALES SPECIFICATIONS

|                                    | CHARACTERISTICS | METHODS     |
|------------------------------------|-----------------|-------------|
| Acid value                         | 32-37 mg KOH/g  | ASTM D-1639 |
| Viscosity (Cone and plate - 165°C) | 22-30 Pa.s      | DIN 53229   |
| Color (50%)                        | 3 max Gardner   | ASTM D-1544 |

### OTHER CHARACTERISTICS<sup>1</sup>

|  | CHARACTERISTICS | METHODS |
|--|-----------------|---------|
| Appearance                                     | Pale granules   |         |
| Glass transition temperature (T <sub>g</sub> ) | approx 59 °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 190°C (object temperature)

### RECOMMENDED MIXING RATIO

REAFREE® 6499-TS / Epoxy: 70/30

### MARKET

#### Coatings & Inks

- Industrial Coating
  - General Industry
  - Metal Interior - Powder

### PERFORMANCE BENEFITS

- Excellent overbake resistance, also in gas-oven applications.
- Very good flow.
- High salt spray resistance.
- Good mechanical properties.
- Good recoatability.
- Tribochargeable.

# REAFREE® 6499-TS

## FORMULATION GUIDELINES

| STARTING FORMULATION            |     |
|---------------------------------|-----|
| <b>REAFREE® 6499-TS</b>         | 438 |
| Titanium Dioxide <sup>(1)</sup> | 334 |
| Epoxy resins <sup>(2)</sup>     | 188 |
| <b>REAFREE® F3300-A15</b>       | 37  |
| Benzoin                         | 3   |

<sup>(1)</sup> Kronos 2160

<sup>(2)</sup> Araldite® GT-7004 (Huntsman) DER™ 663 UE (Dow Chemical) Epikote® 3003 (Resolution)

## 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            | 80 °C       |

## COATING PROPERTIES

|                 | CHARACTERISTICS | METHODS     |
|-----------------|-----------------|-------------|
| Film thickness  | 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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