

TECHNICAL DATA SHEET

REAFREE® 6489-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)	24-30 Pa.s	DIN 53229
Color (50%)	3 max Gardner	ASTM D-1544

OTHER CHARACTERISTICS¹

	CHARACTERISTICS	METHODS
Appearance	Pale granules	
Glass transition temperature (T _g)	approx 59 °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

12 minutes at 180°C (object temperature)

RECOMMENDED MIXING RATIO

REAFREE® 6489-TS / Epoxy: 70/30

MARKET & APPLICATIONS

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® 6489-TS

FORMULATION GUIDELINES

STARTING FORMULATION	
REAFREE® 6489-TS	438
Titanium Dioxide ⁽¹⁾	334
Epoxy resins ⁽²⁾	188
REAFREE® F3300-A15	37
Benzoin	3

⁽¹⁾ Kronos® 2160

⁽²⁾ 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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