

REAFREE® 6489-TS

POWDER COATINGS / HYBRID

TECHNICAL DATA SHEET

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.

Performance Benefits

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

Polymer Type

- Saturated Carboxylated Polyester Resin

Sales Specifications

Colour (50%), (ASTM D-1544)	3 max
Acid value, mg KOH/g (ASTM D-1639)	32 - 37
Viscosity 165°C, Pa.s (ICI – DIN 53229)	24 - 30

Other Characteristics¹

Appearance	Pale granules
Glass Transition T, °C (DSC - Tg)	approx 59

¹ 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 (oven temperature)

Recommended Mixing Ratio REAFREE 6489-TS / Epoxy : 70/30

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)

Formulation Guidelines

Application / Extrusion Conditions

Extruder:	BUSS PCS-30
Torque:	40%
Speed:	200 rpm
Extrusion temperature:	80°C
Spraying Gun:	GEMA PG 1-B
Application voltage:	60-80 Kv
Test substrate:	Degreased steel 1 mm

Coating Properties

Film thickness	60-80 microns
Gloss 60°, (ASTM D-523-60E)	Over 94%
Cupping test, (DIN 53156)	Over 8 mm
Direct Impact, (ASTM D-2794)	Over 80 Kg.cm
Reverse Impact, (ASTM D-2794)	Over 80 Kg.cm
Conical mandrel, (ASTM D-522)	100%
Adhesion, (DIN 53151)	Gt0

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 & 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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