REAFREE® 4705

POWDER COATINGS / TGIC

TECHNICAL DATA SHEET

Product Application details

Saturated carboxylated polyester for combination with Triglycidylisocyanurate.
Suitable for the formulation of decorative and protective thermosetting powders for electrostatic application.
Higher Tg than REAFREE 4703.
Slow curing type.
TMA free type.

Performance Benefits

- Very good flow.
- High gloss.
- Good mechanical properties.
- Excellent outdoor durability.

Polymer Type

- Saturated Carboxylated Polyester Resin

Sales Specifications

Colour (50%), (ASTM D-1544)	2 max
Acid value, mg KOH/g (ASTM D-1639)	35 - 40
Viscosity 165ºC, Pa.s (ICI – DIN 53229)	25 - 35

Other Characteristics[1]

Appearance	Pale granules
Glass Transition T, ºC (DSC - Tg)	approx 70

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 200ºC (object temperature)

Recommended Mixing Ratio

REAFREE 4705 / TGIC : 93/7

Formulation Guidelines

Starting Formulation

REAFREE 4705	595
Titanium Dioxide(1)	320
Triglycidylisocyanurate(2)	45
REAFREE F3300-A15	37
Benzoin	3

(1) Kronos 2160
(2) Araldite PT-810 (Huntsman) / Tepic (Nissan Chemical)

Application / Extrusion Conditions

Extruder:	BUSS PCS-30
Torque:	40%
Speed:	200 rpm
Extrusion temperature:	80ºC
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 60º, (ASTM D-523-60E)	Over 90%
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

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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 30ºC. Avoid direct sunlight.

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