

REAFREE® 5406

POWDER COATINGS / TGIC & PRIMID

TECHNICAL DATA SHEET

Product Application details

Saturated carboxylated polyester for combination with Triglycidylisocyanurate or β -Hydroxyalkylamide type hardeners.

Suitable for the formulation of outdoor SUPERDURABLE and protective thermosetting powders for electrostatic application.

For mat paints by dry-blend with REAFREE 5706 or REAFREE 5002

Low TGIC or PRIMID⁽¹⁾ demand.

TMA free type.

Performance Benefits

- Flexibility
- Good flow
- 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)	18 - 22
Viscosity 165°C, Pa.s (ICI – DIN 53229)	18 - 32

Other Characteristics¹

Appearance	Pale granules
Glass Transition T, °C (DSC - Tg)	approx 57

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

Curing Conditions

TGIC: 15 minutes at 200°C (object temperature)

PRIMID⁽¹⁾: 20 minutes at 180°C (object temperature)

⁽¹⁾PRIMID is a trade mark of EMS-Chemie AG

Recommended Mixing Ratio

REAFREE 5406 / TGIC :	96/4
REAFREE 5406 / PRIMID XL-552 ⁽¹⁾ :	97/3

Starting Formulation

	A	B
REAFREE 5406	---	647
REAFREE 5706	633	---
Titanium Dioxide ⁽¹⁾	320	320
β -Hydroxyalkylamide ⁽²⁾	34	20
Flow modifier ⁽³⁾	10	10
Benzoin	3	3

Formulation Guidelines

- (1) Kronos 2160
(2) Primid XL-552 (EMS Chemie)
(3) Byk 360 P (Byk Chemie)

DRY-blend paints A/B: 50/50

Application / Extrusion Conditions

Extruder:	BUSS PCS-30
Torque:	40%
Speed:	200 rpm
Extrusion temperature:	105°C
Spraying Gun:	GEMA PG 1-B
Application voltage:	60-80 Kv
Test substrate:	Degreased steel 1 mm
Curing conditions:	15min. at 200°C

Coating Properties

Film thickness	60-80 microns
Gloss 60°, (ASTM D-523-60E)	Ca 40%
Cupping test, (DIN 53156)	Over 8 mm
Direct Impact, (ASTM D-2794)	Over 75 Kg.cm
Reverse Impact, (ASTM D-2794)	Over 45 Kg.cm
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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