

# REAFREE® 5002

POWDER COATINGS / TGIC & PRIMID

TECHNICAL DATA SHEET

## Product Application details

Saturated carboxylated polyester for combination with Triglycidylisocyanurate or  $\beta$ -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 5401.

High cross-linking density.

TMA free type.

## Performance Benefits

- 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)	45 - 50
Viscosity 165°C, Pa.s (ICI – DIN 53229)	30 - 60

## Other Characteristics<sup>1</sup>

Appearance	Pale granules
Glass Transition T, °C (DSC - Tg)	approx 66

<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

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

PRIMID<sup>(1)</sup>: 20 minutes at 180°C (object temperature)

<sup>(1)</sup>PRIMID is a trade mark of EMS-Chemie AG

## Recommended Mixing Ratio

REAFREE 5002 / TGIC :	90/10
REAFREE 5002 / PRIMID XL-552:	93/7

## Starting Formulation

	A	B
<b>REAFREE 5002</b>	576	---
<b>REAFREE 5401</b>	---	614
Titanium Dioxide <sup>(1)</sup>	320	320
Triglycidylisocyanurate <sup>(2)</sup>	64	26
REAFREE F3300-A15	37	37
Benzoin	3	3

## Formulation Guidelines

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

DRY-blend paints A/B: 50/50

## 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
Curing conditions:	15min. at 200°C

## Coating Properties

Film thickness	60-80 microns
Gloss 60°, (ASTM D-523-60E)	Ca 35%
Cupping test, (DIN 53156)	Over 8 mm
Direct Impact, (ASTM D-2794)	Over 50 Kg.cm
Reverse Impact, (ASTM D-2794)	Over 20 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.

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**Delivery form**

Granules. White opaque polyethylene bags of 25 Kg. One Ton pallet shrink – wrapped.

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**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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