

REAFREE® 8304-T

POWDER COATINGS / PRIMID

TECHNICAL DATA SHEET

Product Application details

Saturated carboxylated polyester for combination with β -Hydroxyalkylamide type hardeners. Suitable for the formulation of outdoor durable and protective thermosetting powders for electrostatic and triboelectric applications. For high gloss systems with low cross-linker demand. For matt powder coatings by dry blending. Gas oven stabilised. TMA free type.

Performance Benefits

- Excellent levelling. High gloss. Good degassing properties.
- For matt finishes by dry blending with REAFREE 8784-T and 8184-T.
- Good mechanical properties.
- Excellent outdoor durability.
- Good yellowing resistance curing with direct-fired gas ovens.
- Tribochargeable.

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)	20 - 40

Other Characteristics¹

Appearance	Pale granules
Glass Transition T, °C (DSC - Tg)	approx 61

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 200°C (object temperature)

Recommended Mixing Ratio

REAFREE 8304-T / PRIMID XL-552⁽¹⁾ : 97/3
REAFREE 8304-T / PRIMID QM-1260⁽¹⁾ : 96/4
⁽¹⁾PRIMID is a trade mark of EMS-Chemie AG

Starting Formulation

	A	B	C
REAFREE 8304-T	608	---	---
REAFREE 8784-T	---	583	---
REAFREE 8184-T	---	---	564
Titanium Dioxide ⁽¹⁾	319	317	317
β -Hydroxyalkylamide ⁽²⁾	19	44	63
CRAYVALLAC WN-1495	10	10	10
Flow modifier ⁽³⁾	10	10	10
Benzoin	2	2	2
Barium sulfate	32	34	34

- (1) Kronos 2160
(2) Primid XL-552 (EMS Chemie)
(3) Resiflow PV-88 (Worlée)

DRY-blend paints **A/B**: 50/50
DRY-blend paints **A/C**: 50/50

Application / Extrusion Conditions

Extruder: BUSS PCS-30
Speed / Torque: 200 rpm / 40%
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
A/B Gloss 60°, (ASTM D-523-60E) Ca 28%
A/C Gloss 60°, (ASTM D-523-60E) Ca 20%
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

Formulation Guidelines

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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