

REAFREE® 17014

POWDER COATINGS / POLYURETHANE

TECHNICAL DATA SHEET

Product Application details

Saturated Hydroxylated polyester for combination with blocked isocyanate resin and polyurethodione. Suitable for the formulation of heat transfer matt paints in combination with REAFREE 17091.

Performance Benefits

- Excellent flow.
- Excellent mechanical properties.
- Excellent outdoor durability.
- Low gloss in a "one-shot" process.

Polymer Type

- Saturated Hydroxylated Polyester Resin

Sales Specifications

Colour (50%), (ASTM D-1544)	2 max
Hydroxyl value, mg KOH/g (G/07-1)	38 - 48
Acid value, mg KOH/g (ASTM D-1639)	2 max
Viscosity 165°C, Pa.s (ICI – DIN 53229)	20 – 40

Other Characteristics¹

Appearance	Pale granules
Glass Transition T, °C (DSC - Tg)	approx 60

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

Curing Conditions

12 minutes at 200°C (object temperature)

Recommended Mixing Ratio

REAFREE 17014 / Uretodione : 80/20

Starting Formulation

REAFREE 17014	510
REAFREE 17091	150
Vestagon BF 1320 (1)	300
Flow modifier (2)	12
Benzoin	3,5
Carbon black (3)	0,04
Red Bayferrox 130M (4)	0,01
Colortherm Yellow 10 (4)	3,65
Titanium Dioxide (5)	20,80

Formulation Guidelines

- (1) Evonik
(2) BYK 360P (Byk Chemie)
(3) Printex V
(4) Lanxess
(5) Kronos 2160

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 Aluminium 0,8 mm

Coating Properties

Film thickness	60-80 microns
Gloss 60°, (ASTM D-523-60E)	Ca 15%
Cupping test, (DIN 53156)	Over 5 mm
Direct Impact, (ASTM D-2794)	Over 50 Kg.cm
Reverse Impact, (ASTM D-2794)	Over 50 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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