

TECHNICAL DATA SHEET

REAFREE® 17030

Powder Resins / Saturated Hydroxylated Polyester / Polyisocyanate

PRODUCT APPLICATION DETAILS

Saturated Hydroxylated polyester for combination with blocked isocyanate resin and polyurethodione. Suitable for the formulation of outdoor durable and protective thermosetting powder paints.

SALES SPECIFICATIONS

| | CHARACTERISTICS | METHODS |
|------------------------------------|-----------------|-------------|
| Acid value | 10 max mg KOH/g | ASTM D-1639 |
| Viscosity (Cone and plate - 165°C) | 20-40 Pa.s | DIN 53229 |
| Color (50%) | 2 max Gardner | ASTM D-1544 |
| Hydroxyl value | 90-110 mg KOH/g | G/07-1 |

OTHER CHARACTERISTICS¹

| | CHARACTERISTICS | METHODS |
|--|-----------------|---------|
| Appearance | Pale granules | |
| Glass transition temperature (DSC - T _g) (T _g) | approx 57 °C | DSC |

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

CURING CONDITIONS

15 minutes at 200°C (oven temperature)

RECOMMENDED MIXING RATIO

REAFREE 17030 / Blocked isocyanate 70/30

MARKET

Coatings & Inks

- Industrial Coating
 - General Industry
 - Metal Exterior - Powder

PERFORMANCE BENEFITS

- Excellent flow
- Excellent mechanical properties
- Excellent outdoor durability
- Very high surface hardness

REAFREE® 17030

FORMULATION GUIDELINES

| STARTING FORMULATION | |
|---|-----|
| REAFREE® 17030 | 455 |
| Titanium Dioxide ⁽¹⁾ | 330 |
| IPDI ε-Caprolactam blocked ⁽²⁾ | 200 |
| Flow control agent ⁽³⁾ | 10 |
| Benzoin | 5 |

⁽¹⁾ Kronos® 2160

⁽²⁾ Vestagon® B 1530 (Evonik)

⁽³⁾ BYK® 360P (Byk Chemie)

APPLICATION / EXTRUSION CONDITIONS

| CHARACTERISTICS | |
|----------------------------------|-------------|
| Extruder | BUSS PCS-30 |
| Spraying gun | GEMA PG 1-B |
| Torque | 40 % |
| Extrusion speed | 200 rpm |
| Application voltage | 60-80 kV |
| Test substrate (Degreased steel) | 1 mm |
| Extrusion temperature | 100 °C |

COATING PROPERTIES

| | CHARACTERISTICS | METHODS |
|-----------------|-----------------|-------------|
| Film thickness | 60-80 microns | |
| Gloss (60°) | Over 90 % | |
| Cupping test | Over 5 mm | DIN 53156 |
| Direct impact | Over 50 kg.cm | ASTM D-2794 |
| Reverse impact | Over 50 kg.cm | ASTM D-2794 |
| Conical mandrel | 100 % | ASTM D-522 |
| Adhesion | Gt0 | DIN 53151 |

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 AND 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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