

TECHNICAL DATA SHEET

REAFREE® 5706

Powder Resins / Saturated Carboxylated Polyester / TGIC and β -Hydroxyalkylamide

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. TMA free type.

SALES SPECIFICATIONS

| | CHARACTERISTICS | METHODS |
|------------------------------------|-----------------|-------------|
| Acid value | 30-35 mg KOH/g | ASTM D-1639 |
| Viscosity (Cone and plate - 165°C) | 20-32 Pa.s | DIN 53229 |
| Color (50%) | 2 max Gardner | ASTM D-1544 |

OTHER CHARACTERISTICS¹

| | CHARACTERISTICS | METHODS |
|-----------------------------------|-----------------|---------|
| Appearance | Pale granules | |
| Glass transition temperature (Tg) | 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

TGIC: 10 minutes at 200°C (object temperature)
 PRIMID⁽¹⁾: 15 minutes at 180°C (object temperature)
⁽¹⁾ EMS-Chemie AG

RECOMMENDED MIXING RATIO

REAFREE® 5706 / TGIC: 93/7
 REAFREE® 5706 / PRIMID XL-552⁽¹⁾: 95/5
 REAFREE® 5706 / PRIMID QM-1260 ⁽¹⁾: 94,5/5,5

MARKET

Coatings & Inks

- Industrial Coating
 - Ace
 - General Industry
 - Metal Exterior - Powder

PERFORMANCE BENEFITS

- Flexibility.
- High gloss.
- Blooming free.
- Excellent outdoor durability. SUPERDURABLE FINISHES.

REAFREE® 5706

FORMULATION GUIDELINES

| | STARTING FORMULATION | |
|--|----------------------|--------|
| | TGIC | PRIMID |
| REAFREE® 5706 | 620 | 633 |
| Titanium Dioxide ⁽¹⁾ | 320 | 320 |
| Triglycidylisocyanurate ⁽²⁾ | 47 | - |
| β-Hydroxyalkylamide ⁽³⁾ | - | 34 |
| Benzoin | 3 | 3 |
| Flow modifier ⁽⁴⁾ | 10 | 10 |

⁽¹⁾ Kronos® 2160
⁽²⁾ Araldite® PT-810 (Huntsman) / Tepic (Nissan Chemical)
⁽³⁾ Primid® XL-552 (EMS Chemie)
⁽⁴⁾ Byk® 360 P (Byk Chemie)

APPLICATION / EXTRUSION CONDITIONS

| | CHARACTERISTICS |
|---|-----------------|
| Extruder | BUSS PCS-30 |
| Spraying gun | GEMA PG 1-B |
| Torque | 40 % |
| Extrusion temperature ((TGIC / PRIMID)) | 80 / 105 °C |
| Extrusion speed | 200 rpm |
| Application voltage | 60-80 kV |
| Test substrate (Degreased steel) | 1 mm |

COATING PROPERTIES

| | CHARACTERISTICS | METHODS |
|----------------|-----------------|-------------|
| Film thickness | 60-80 microns | |
| Gloss (60°) | Over 90 % | |
| Cupping test | Over 8 mm | DIN 53156 |
| Direct impact | Over 75 kg.cm | ASTM D-2794 |
| Reverse impact | Over 45 kg.cm | ASTM D-2794 |
| 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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