

General Description

CRYLCOAT® 1701-0 is a highly reactive carboxyl functional polyester resin for use with epoxy resin in a 70/30 ratio to manufacture hybrid powder coatings. Formulations based on CRYLCOAT® 1701-0 exhibit excellent mechanical properties, very good flow and overbake resistance.

Saturated Polyester Resin

Product Specification

| | Limits |
|--------------------------------------|---------------|
| Appearance | Pale granules |
| Brookfield Viscosity @ 200 °C, mPa.s | 4700-7900 |
| Color, b-value | Max. 15 |
| Acid value (mg KOH/g) | 32-40 |

Other Properties

| | Typical value |
|-----------------------|---------------|
| Glass transition (°C) | Approx. 62 |

Starting Formulation

| Component | Weight (%) |
|---------------------------|------------|
| CRYLCOAT® 1701-0 | 41.0 |
| Epoxy resin (EEW 700-900) | 17.6 |
| Titanium dioxide | 40.0 |
| MODAFLOW® Powder 6000 | 1.0 |
| Benzoin | 0.4 |

Extrusion & Application Conditions

| Extrusion | |
|-------------|--|
| Extruder | Twin screw |
| Speed | 300 rpm |
| Torque | 70 to 85 % |
| Temperature | 95 to 105 °C |
| Application | |
| Application | 60 micrometer film on 0.5 mm steel panel |
| Spray Gun | Output voltage: 60 kV |
| Curing | 10 min @ 170 °C metal temperature |

Film Properties

| Test | Result |
|--|---------|
| Gloss @ 60° (%) | 95 |
| Direct/reverse impact (kg. cm or in. lbs.) | 160/160 |

Shelf Life

Under normal storage conditions (≤30°C), the shelf life of the resin will be 24 months from date of manufacturing. For product older than 24 months, it is recommended to check the acid value and the viscosity every year.

Safety & Environmental Protection

For more information, please refer to the Material Safety Data Sheet.

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