

General Description

CRYLCOAT® 1631-0 is a carboxyl functional polyester resin for use with epoxy resins in a ratio range from 50/50 to 60/40 to manufacture hybrid powder coatings. Formulations containing CRYLCOAT® 1631-0 exhibit good storage stability.

Saturated Polyester Resin

Product Specification

| | Limits |
|--------------------------------------|---------------|
| Appearance | Pale granules |
| Brookfield Viscosity @ 200 °C, mPa.s | 2000-4000 |
| Color, b-value | Max. 15 |
| Acid value (mg KOH/g) | 57-67 |

Other Properties

| | Typical value |
|-----------------------|---------------|
| Glass transition (°C) | Approx. 59 |

Starting Formulation

| Component | Weight (%) |
|---------------------------|------------|
| CRYLCOAT® 1631-0 | 33.0 |
| Epoxy resin (EEW 700-900) | 24.0 |
| Titanium dioxide | 29.0 |
| Barium sulfate | 10.5 |
| ADDITOL® P 896 | 3.0 |
| Benzoin | 0.5 |

Extrusion & Application Conditions

| Extrusion | |
|-------------|--|
| Extruder | Twin screw |
| Speed | 250 rpm |
| Torque | 75 ± 5 % |
| Temperature | 95 to 105 °C |
| Application | |
| Application | 60 micrometer film on steel panel |
| Spray Gun | Output voltage: 60 kV |
| Curing | 10 min @ 170° C metal temperature 20 min @ 160° C metal temperature |

Film Properties

| Test | Result |
|--|---------|
| Gloss @ 20°/60° (%) | 83/94 |
| 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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