

General Description

CRYLCOAT® 1686-3 is a carboxyl functional polyester resin for use in medium cure 60/40 hybrid powder coatings. Coatings based on CRYLCOAT® 1686-3 exhibit good flow with excellent mechanical properties.

(Formerly CRYLCOAT® E 04286)

Preliminary Technical Data Sheet

Saturated Polyester Resin

Product Specification

	Limits
Appearance	Pale granules
Brookfield Viscosity @ 200 °C, mPa.s	Approx. 4000
Color, b-value	Max. 20
Acid value (mg KOH/g)	Approx. 48

Other Properties

	Typical value
Glass transition (°C)	Approx. 57

Starting Formulation

Component	Weight (%)
CRYLCOAT® 1686-3	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	60 ± 5 %
Temperature	80 to 100 °C
Application	
Application	60 micrometer film on steel panel
Spray Gun	Output voltage: 60 kV
Curing	10 min @ 180° C metal temperature

Film Properties

Test	Result
Gloss @ 20°/60° (%)	88/100
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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