

# EP-1603

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**POWDER COATING  
RESINS**

**HYBRID**

**PE : HARDENER = 60 : 40**

## Description

EP-1603 is a saturated carboxylated polyester resin designed for 60/40 hybrid powders to be cured at 180°C. Coatings based on EP-1603 combine a good flow together with an excellent overbaking resistance.

## Specification

Item	Limits
Acid value (mg KOH/g)	48 - 54
Viscosity @ 175 °C, (mPa.s)	7800 - 9800
Color, b value	Max 15

## Other

Item	Typical value
Glass transition temperature (°C)	55

## Storage conditions

The resin in its original unopened bags is stable for more than 1 year, stored in a dry place at temperature below 30°C. Avoid direct sunlight.

## Delivery form

Granules. White opaque polyethylene bags of 25kg. One ton per pallet .

## Starting Formulation

Component	Weight (g)
EP-1603	360
Epoxy resin	240
TiO <sub>2</sub>	386
Flow agent	10
Benzoin	4

## Application/Extrusion Conditions

Extrusion	
Extruder	Twin screw
Speed	250 rpm
1 <sup>st</sup> Zone Temperature	95 °C
2 <sup>nd</sup> Zone Temperature	105 °C
Application	
Application	70 micrometer film on 0.5 mm steel panel
Spray Gun	Output voltage: 70 kV
Curing	15 min @ 180° C metal temperature

## Coating Properties

Test Items	Result
Film thickness (microns)	60-80
Gloss @ 60° (%)	92
Cupping test (mm)	7
Direct impact (kg.cm )	160
Reverse impact (kg.cm )	160
Adhesion (grade)	0

## System Properties

- ❖ High gloss
- ❖ Very good flow
- ❖ Good mechanical properties
- ❖ Excellent over-baking resistance

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