SIRALES® PE 8212.T

PRODUCT DATA SHEET
RS/207/111301/1

Description
Carboxylated polyester resin suitable for hybrid powder coatings.

Applications
SIRALES® PE 8212.T is suggested in combination 50/50 p.b.w. with EPOSIR® 7175 PG, 7168 PG and EPONAC® 700, to manufacture powder coatings with enhanced gloss combined with both good flow and mechanical properties. SIRALES® PE 8212.T has been specifically designed to obtain matt or low gloss, high quality finish powder coatings, when formulated with small amounts of matting agents, like **Sirion® VP 1035.** Powder coatings manufactured with SIRALES PE 8212.T are suitable for tribo gun applications.

Curing cycle : 8…12 min. at 200°C
(in real time) 15…20 min. at 180°C.

Sales specification

Property	Value	Unit	Method
Acid number	70 ... 80	mg.KOH/gr	SIR 10328
Viscosity ICI at 200 °C	3000 ... 6000	mPa.s	SIR 10391
Colour§	2 max.	Sc. Gardner	ASTM D 1544

(§) Determinated on 50% m/m solution in dimetilformammide

Typical properties

Property	Value	Unit	Method
Glass transition temperature (Tg)	63	°C	ASTM D 3418

Supply form
Product is available as irregular flakes packed in 25 Kg polyethylene bags.

Storage
The product should be stored in the original bags kept tightly closed, away from sunshine and heat sources. Under these conditions and at a normal temperature (25°C) the resin should have a stability of one year.

Safety
The product is not flammable and no toxic effect has been determined.
Further informations are provided in the relevant safety data sheet.

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APPLICATION DATA
RS/207/081001/2

Starting formulation white matt powder coating

Component	[part by weight]
Sirales PE 8212.T	300
Eposir 7175	300
Sirion VP 1035	15
Benzoin	4
Flow control agent(§)	8
Calcium Carbonate(§§)	100
Titanium dioxide(§§§)	275

(§) Byk 360/P from BykChemie GmbH
(§§) Hydrocarb from Omya
(§§§) Kronos 2310 from Kronos Titan GmbH

Manufacturing method:
Extruder: Buss-Ko-Kneader PLK 46; Casing setting temp.: 120°C; Kneading screw temp.: cold; rpm: 150.

Application procedure :
Corona spray gun, voltage 60 kV; Unichim steel 1 mm thick

Stoving cycles :
10 minutes at 200°C; 15 minutes at 180°C (object temperature)

Film Properties

Whiteness index [DIN CIE 10°]	80
Gloss a 60°	**34**
Gloss a 20°	**7**
Impact front / rev [N.m]	> 10 / > 10

Overbaking Resistance

Baking Conditions	Film thickness µm	DE*
10 Min 180°C	81 - 87	
10 Min 200°C	80 - 85	**0,37**
10 Min. 220°C	81 - 86	**1,81**
10 Min. 240°C	80 - 86	**2,66**