SIRALES® PE 7113.T

PRODUCT DATA SHEET
RS/7113/111401/1

Description
Carboxylated polyester resin suitable for outdoor powder coatings.
Sirales® PE 7113.T contains raw materials from renewable sources.
Experimental resin. The specifications could be refined without any notice. In case of any question, please contact our sales department.

Applications
Higher Tg version of Sirales® PE 7112.T. It is suitable for the production of outdoor powder coatings with a low content of hardeners: b – hydroxyalkylamide (ratio 96:4). It enables to obtain powder coatings with the following characteristics:

- very good tribo chargeability;
- optimal mechanical properties, with an excellent flow and gloss;
- good resistance to weather agents for industrial applications;
- very low yellowing even with high temperature curing cycles.

Suggested curing cycles **10…12 min. at 200 ° C**
(real time) **15…20 min. at 180 ° C**

Sales specifications

Property	Value	Unit	Method
Acid number	20 - 28	mg KOH/gr	SIR 10328
Viscosity at 200°C (ICI cone plate)	4500 - 7500	MPa.s	SIR 10391
Colour (1)	3 max.	Sc. Gardner	ASTM D 1544

(1) Determined on 50% m/m solution on dimethylformamide.

Typical Properties

Property	Value	Unit	Method
Glass transition temperature (Tg)	58	°C	ASTM D 3418

Supply Form
Product is available as irregular flakes packed in 25 kg Polyethylene bags.

Storage stability
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 (not more than 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 information are provided in the safety data sheet.

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APPLICATION DATA
RS/7113/111401/1

Starting formulation

Component	[part by weight]
Sirales PE 7113.T	624
Prosid 411 or H	26
Benzoin	3
Flow control agent(§)	12
Titanium dioxide(§§)	350

(§) Byk 360/P from BykChemie GmbH
(§§) 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:
Impact front / rev: > 10 / > 10 [N.m]

Comparison of Tg's	Sirales PE 7113.T	Sirales PE 7112.T
Tg of resin	58.9 °C	53.5 °C
Tg of powder	56.8 °C	51.5 °C
Tg of cured film (15 min at 200°C)	63.3 °C	59.2 °C

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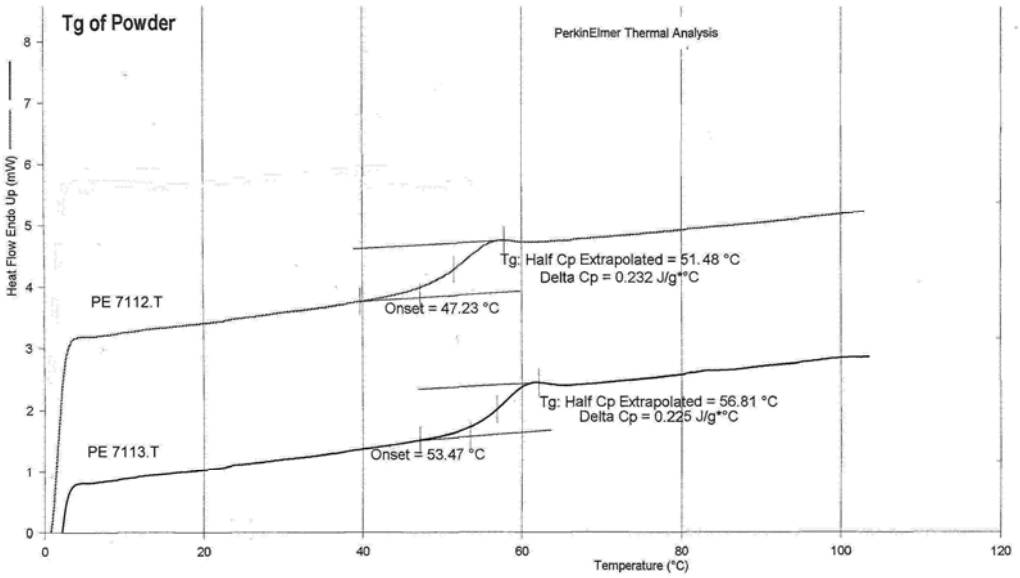
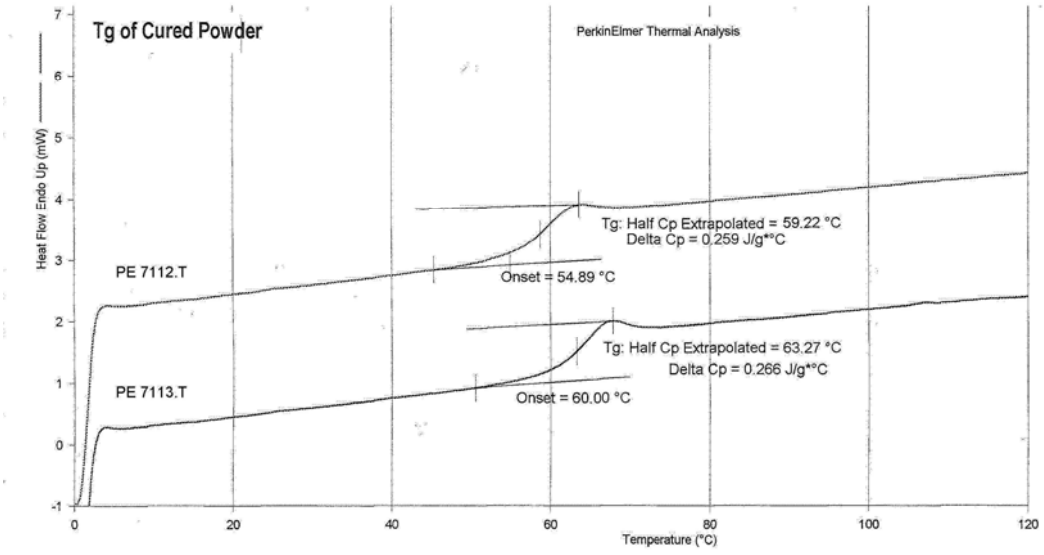
APPLICATION DATA
RS/7113/111401/2

Tg's evaluation : DSC Perkin Elmer mod. Diamond





SIRALES ®: SIR INDUSTRIALE registered trade mark.
N.B.: The data given in this brochure do not constitute characteristic properties of the single product.
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