

SIRALES[®] PE 7807.T

PRODUCT
DATA SHEET
RS/184.T/101701/2

Description

Carboxylated polyester resin for outdoor powder coatings.

Applications

Sirales[®] PE 7807.T, in combination with the hardener based on b-hydroalkylamides (ratio 95:5), makes achievable a industrial powder coating that have an high reactivity, with good mechanical properties as well as flow and resistances to overbaking.

The powder coatings based on Sirales[®] PE 7807.T are suitable for tribo application.

Curing cycles (real time) 10 ... 15 min. at 160°C.
 15 ... 20 min. at 150°C.

Sales specification

Property	Value	Unit	Method
Acid number	30 – 38	mg KOH/gr	SIR 10328
Viscosity at 200°C (ICI cone plate)	4000 – 7000	mPa.s	SIR 10391
Colour (1)	3 max.	Sc. Gardner	ASTM D 1544

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

Typical Properties

Property	Value	Unit	Method
Glass transition temperature (T _g)	60	°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 (25°C max), 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 relevant safety data sheet.

SIRALES[®]: SIR INDUSTRIALE registered trade mark.

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SIRALES[®] PE 7809

PRODUCT
DATA SHEET
RS/7809/059901/1

Description

Carboxylated polyester resin for outdoor powder coatings suitable to be used with tribostatic systems.

Applications

Sirales PE 7809, in combination with the β -hydroxyalkylamide hardeners (ratio 95/5), makes achievable a powder coating durable for outdoor purposes featuring a very good flow as well as mechanical and weather resistance properties, a low yellowing and a high resistance to overbaking, along with high storage stability. The particular formulation of Sirales PE 7809 grants the absence of "blooming" during low temperature curing and a very good wettability of the pigments and fillers used in production of powder coating.

Curing cycles (real time)

10 min. at 200°C ; 15 min. at 180°C ; 20 min. at 160°C.

Sales specification

Property	Value	Unit	Method
Acid number	30 – 38	mg KOH/gr	SIR 10328
Viscosity at 200°C (ICI cone plate)	3000 – 5500	mPa.s	SIR 10391
Colour (1)	4 max.	Sc. Gardner	ASTM D 1544

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

Typical Properties

Property	Value	Unit	Method
Glass transition temperature (Tg)	62	°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 (25°C max), the resin should have a stability of one year.

Safety

The product is not flammable and no toxic effect has been determined.
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SIRALES[®] PE 7810

PRODUCT
DATA SHEET
RS/048/071503/1

Description

Carboxylated polyester resin, free from trimellitic anhydride, suitable for outdoor powder coatings.

Applications

Sirales PE 7810, in combination with HAA hardeners (ratio 95/5), makes achievable a powder coating durable for outdoor purposes featuring a very good flow as well as mechanical and weather resistance properties, a low yellowing and a high resistance to overbaking.

Curing cycles (real time)

10 min. at 200°C ; 15 min. at 180°C ; 20 min. at 160°C.

Sales specification

Property	Value	Unit	Method
Acid number	30 – 38	mg KOH/gr	SIR 10328
Viscosity ICI at 200°C	2750 – 4750	mPa.s	SIR 10391
Colour (1)	3 max.	Sc. Gardner	ASTM D 1544

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

Typical Properties

Property	Value	Unit	Method
Glass transition temperature (Tg)	61	°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 (25°C max), 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 relevant safety data sheet.

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SIRALES[®] PE 7810

APPLICATION DATA

Typical formulation

SIRALES PE 7810	570
PROSID 411	30
BYK 360/P	12
BENZOIN	2
KRONOS 2310	400

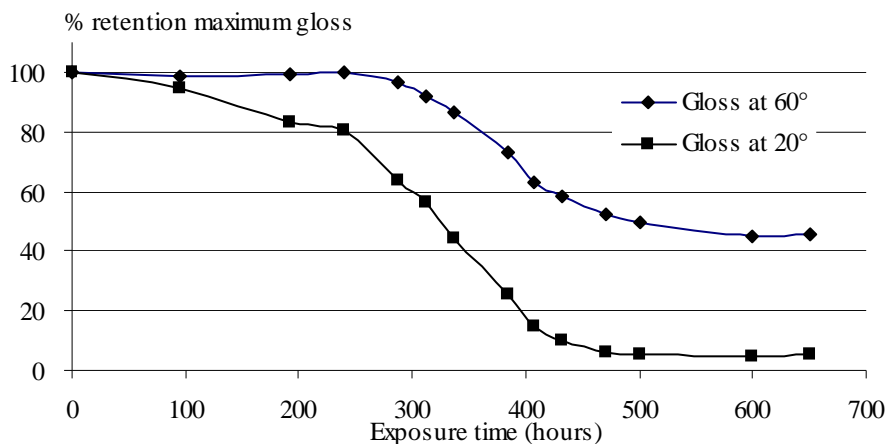
Extrusion condition

Extruder	BUSS PLK 46
Casting temperature	120°C
Screw temperature	Cold
Speed	120 - 140 rpm

Film properties (curing cycle 10 min. at 200°C; 15 min. at 180°C; 20 min. at 160°C real time)

Film thickness	50-90µm
Indentation (DIN 53156)	> 9 mm
Direct gardner impact (ASTM D 2794)	> 10 Nm
Reverse gardner impact (ASTM D 2794)	> 10 Nm
Mandrel bend resistance (ASTM D 522)	pass

QUV exposure test



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SIRALES[®] PE 7811

PRODUCT DATA SHEET

RS/4835/059901/1

Description

Carboxylated polyester resin for clearcoat outdoor powder coatings containing 1,0% of flow agent.

Applications

Sirales[®] PE 7811, in combination with the β -hydroxyalkylamide hardeners (ratio 95/5), makes achievable a very clear powder coating with good outdoor resistance, a very good flow as well as mechanical resistance and a low yellowing during baking, along with high storage stability. It's sufficient to use 0,1% of benzoin to prepare a powder coatings without surface defects.

Curing cycles (real time): 10 min. at 200°C
(real time) 15 min. at 180°C
20 min. at 160°C.

Sales specification

Property	Value	Unit	Method
Acid number	30 ... 38	mg KOH/gr	SIR 10328
Viscosity ICI at 200°C	2750 ... 4750	mPa.s	SIR 10391
Colour (1)	4 max.	Sc. Gardner	ASTM D 1544

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

Typical Properties

Property	Value	Unit	Method
Glass transition temperature (Tg)	60	°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 (25°C max), 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 relevant safety data sheet.

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SIRALES[®] PE 7812

PRODUCT DATA SHEET

RS/298/071301/1

Description

Carboxylated polyester resin for outdoor powder coatings.

Experimental resin. The specifications could be refined without any notice. In case of any question, please contact our sales department.

Applications

Sirales[®] PE 7812, in combination with the hardener based on β -hydroalkylamides (ratio 95/5), makes achievable a powder coating for industrial and architectural purposes.

The main characteristics of this paints are high reactivity and absence of blooming in combination with good flow and flexibility.

Curing cycles (real time) 10 ... 15 min. at 160°C
 15 ... 20 min. at 150°C.

Sales specification

Property	Value	Unit	Method
Acid number	30 – 38	mg KOH/gr	SIR 10328
Viscosity at 200°C (ICI cone plate)	3000 – 6000	mPa.s	SIR 10391
Colour (1)	3 max.	Sc. Gardner	ASTM D 1544

(1) Determined on 50% m/m solution in 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 (25°C max), the resin should have a stability of one year.

Safety

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SIRALES[®] PE 7813.T

PRODUCT
DATA SHEET
RS/7813/031301/1

Description

Carboxylated polyester resin suitable for outdoor powder coatings.

Applications

SIRALES PE 7813.T is the flow enhanced version of PE 7816 and it is suitable for the production of outdoor powder coatings in combination with β – hydroxyalkylamide (ratio 95/5). It enables to obtain powder coatings with the following characteristics:

- optimal mechanical properties, with an excellent flow
- very good resistance to weathering
- low yellowing even with high temperature curing cycles
- good tribochargeability.

Suggested curing cycles

(real time)	10...15 min. at 200 °C
	15...20 min. at 180 °C
	20...25 min. at 160 °C

Sales specifications

Property	Value	Unit	Method
Acid number	30 – 38	mg KOH/gr	SIR 10328
Viscosity at 200°C (ICI cone plate)	2000 – 5000	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.

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SIRALES[®] PE 7814.T

PRODUCT
DATA SHEET
RS/314/051401/1

Description

Carboxylated polyester resin for outdoor powder coatings.

Experimental resin. The specifications could be refined without any notice. In case of any question, please contact our sales department.

Applications

Sirales PE 7814.T, in combination with HAA (ratio 95:5), makes achievable a powder coating durable for outdoor purposes featuring very good storage stability, good weather resistance flow and mechanical properties together with high gloss.

The powder coatings based on Sirales[®] PE 7814.T are suitable for tribo application.

Curing cycles (real time)	10 ... 15 min. at 200°C
	15 ... 20 min. at 180°C

Sales specification

Property	Value	Unit	Method
Acid number	30 ... 38	mg KOH/gr	SIR 103281
Viscosity at 200°C (ICI cone plate)	3000 - 5000	mPa.s	SIR 10391
Colour ⁽¹⁾	2 max.	Sc. Gardner	ASTM D 1544

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

Typical Properties

Property	Value	Unit	Method
Glass transition temperature ⁽²⁾	65	°C	ASTM D 3418

(2) Determined on DSC (Perkin Elmer mod Diamond) : 20°C/minute.

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 (20°C) the resin should have a stability of one year.

Safety

The product is not flammable and no toxic effect has been determined.
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SIRALES[®] PE 7816.T

PRODUCT
DATA SHEET
RS/7816/030501/1

Description

Carboxylated polyester resin suitable for outdoor powder coatings.

Applications

SIRALES PE 7816.T is suitable for the production of outdoor powder coatings in combination with \hat{a} – hydroxyalkylamide (ratio 95/5). It enables to obtain powder coatings with the following characteristics:

- optimal mechanical properties, with an excellent flow
- excellent resistance to weather agents
- low yellowing even with high temperature curing cycles
- very good tribochargeability.

Suggested curing cycles

(real time)	10...15 min. at 200 ° C
	15...20 min. at 180 ° C
	20...25 min. at 160 ° C

Sales specifications

Property	Value	Unit	Method
Acid number	30 – 38	mg KOH/gr	SIR 10328
Viscosity at 200°C (ICI cone plate)	2000 – 5000	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.

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SIRALES[®] PE 7817.T

PRODUCT
DATA SHEET
RS/267/061001/1

Description

Carboxylated polyester resin suitable for outdoor powder coatings.

Applications

SIRALES PE 7817.T is suitable for the production of outdoor powder coatings in combination with β – hydroxyalkylamide (ratio 95/5). It enables to obtain powder coatings with the following characteristics:

- optimal mechanical properties, with an excellent flow
- very high resistance to weather agents for architectural purposes
- low yellowing even with high temperature curing cycles
- very good tribochargeability.

Suggested curing cycles

(real time)	10...15 min. at 200 ° C
	15...20 min. at 180 ° C
	20...25 min. at 160 ° C

Sales specifications

Property	Value	Unit	Method
Acid number	30 – 38	mg KOH/gr	SIR 10328
Viscosity at 200°C (ICI cone plate)	2500 – 4500	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)	55	°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

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SIRALES[®] PE 7821.T

PRODUCT DATA SHEET
PROVISIONAL
RS/175/050401/1

Description

Carboxylated polyester resin for outdoor powder coatings suitable to be used with tribostatic systems.

Applications

Sirales PE 7821.T, in combination with the hardener b-hydroxyalkylamides (ratio 95/5) or with triglycidylisocyanurate (ratio 93:7), makes achievable a powder coating durable for outdoor purposes featuring very good mechanical and weather resistance properties, a low yellowing and a high resistance to overbaking.

Curing cycles (real time)

b-hydroxyalkylamide

15 minutes at 180°C

20 minutes at 160°C

TGIC

10 minutes at 200°C

15 minutes at 180°C

Sales specification

Property	Value	Unit	Method
Acid number	30 – 38	mg KOH/gr	SIR 10328
Viscosity at 200°C (ICI cone plate)	5000 – 8000	mPa.s	SIR 10391
Colour (1)	3 max.	Sc. Gardner	ASTM D 1544

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

Typical Properties

Property	Value	Unit	Method
Glass transition temperature (Tg)	64	°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 (25°C max), the resin should have a stability of one year.

Safety

The product is not flammable and no toxic effect has been determined.

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SIRALES® PE 7827.T

PRODUCT
DATA SHEET
RS/307/061601/2

Description

Carboxylated polyester resin suitable for outdoor powder coatings.

Experimental resin. The specifications could be refined without any notice. In case of any question, please contact our sales department.

Applications

SIRALES PE 7827.T is suitable for the production of outdoor powder coatings in combination with β - hydroxyalkylamide (ratio 95/5). It enables to obtain powder coatings with the following characteristics:

- an excellent flow and surface appearance;
- low yellowing and blooming free;
- very high resistance to weather agents for architectural purposes;
- very good tribochargeability.

Suggested curing cycles

(real time)

10...15 min. at 200 ° C

15...20 min. at 180 ° C

Sales specifications

Property	Value	Unit	Method
Acid number	30 – 38	mg KOH/gr	SIR 10328
Viscosity at 200°C (ICI cone plate)	1500 – 3500	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 (T _g)	54	°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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SIRALES[®] PE 7860

PRODUCT
DATA SHEET
RS/320/031501/1

Description

Carboxylated polyester resin for outdoor powder coatings.

Experimental resin. The specifications could be refined without any notice. In case of any question, please contact our sales department.

Applications

Sirales PE 7860, in combination with HAA (ratio 95:5), makes achievable a powder coating durable for industrial and architectural purposes. Its low reactivity and low melt viscosity assures very good flow and surface appearance of powder coatings. Outgassing limit of paints based on it is enhanced of 20-30 microns than that of standard resins.

Curing cycles (real time)
10 ... 15 min. at 200°C
15 ... 20 min. at 180°C

Sales specification

Property	Value	Unit	Method
Acid number	30 ... 38	mg KOH/gr	SIR 10328
Viscosity at 200°C (ICI cone plate)	1500 - 3500	mPa.s	SIR 10391
Colour ⁽¹⁾	2 max.	Sc. Gardner	ASTM D 1544

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

Typical Properties

Property	Value	Unit	Method
Glass transition temperature ⁽²⁾	55	°C	ASTM D 3418

(2) Determined on DSC (Perkin Elmer mod Diamond) : 20°C/minute.

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 (20°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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SIRALES[®] PE 7870.T

PRODUCT DATA SHEET

RS/176/051601/1

Description

Carboxylated polyester resin for industrial outdoor powder coatings.

Experimental resin. The specifications could be refined without any notice. In case of any question, please contact our sales department.

Applications

Siraless[®] PE 7870.T, in combination with HAA hardeners (ratio 95/5), makes achievable a powder coating for outdoor purposes featuring a very good flow as well as mechanical and weather resistance properties, a low yellowing and a high resistance to overbaking.

Good balance of reactivity and viscosity makes it particularly suitable for structural coatings.

Siraless[®] PE 7870.T can be used with tribostatic guns

Curing cycles (real time) 12 ... 15 min at 200°C
15 ... 20 min. at 180°C

Sales specification

Property	Value	Unit	Method
Acid number	30 – 38	mg KOH/gr	SIR 10328
Viscosity ICI at 200°C	2500 – 4500	mPa.s	SIR 10391
Colour (1)	3 max.	Sc. Gardner	ASTM D 1544

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

Typical Properties

Property	Value	Unit	Method
Glass transition temperature (T _g)	59	°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 (25°C max), 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 relevant safety data sheet.

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SIRALES[®] PE 7111.T

PRODUCT
DATA SHEET
RS/167/091602/2

Description

Carboxylated polyester resin suitable for outdoor powder coatings.

Applications

The resin SIRALES[®] PE 7111.T is suitable for the production of outdoor powder coatings with a low content of b – hydroxyalkylamide hardeners - 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;
- excellent resistance to weather agents;
- very low yellowing even with high temperature curing cycles.

Suggested curing cycles

(real time)

b – hydroxyalkylamide

10...15 min. at 200 ° C

15...20 min. at 180 ° C

20...25 min. at 160 ° 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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SIRALES[®] PE 7112.T

PROVISIONAL
PRODUCT
DATA SHEET
RS/174/111402/1

Description

Carboxylated polyester resin suitable for outdoor powder coatings.

Applications

The resin SIRALES[®] PE 7112.T is suitable for the production of outdoor powder coatings with a low content of hardeners: b – hydroxyalkylamide (ratio 96:4) and TGIC (ratio 95:5). 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 (real time)

b – hydroxyalkylamide
10...12 min. at 200 ° C
15...20 min. at 180 ° C

tgic
15 ... 18 min. at 200°C
20 ... 25 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)	55	°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.

SIRALES[®]: SIR INDUSTRIALE registered trade mark.

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SIRALES[®] PE 7113.T

PRODUCT
DATA SHEET
RS/7113/111401/1

Description

Carboxylated polyester resin suitable for outdoor powder coatings.
Siraless[®] 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 Siraless[®] 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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SIRALES[®] PE 7113.T

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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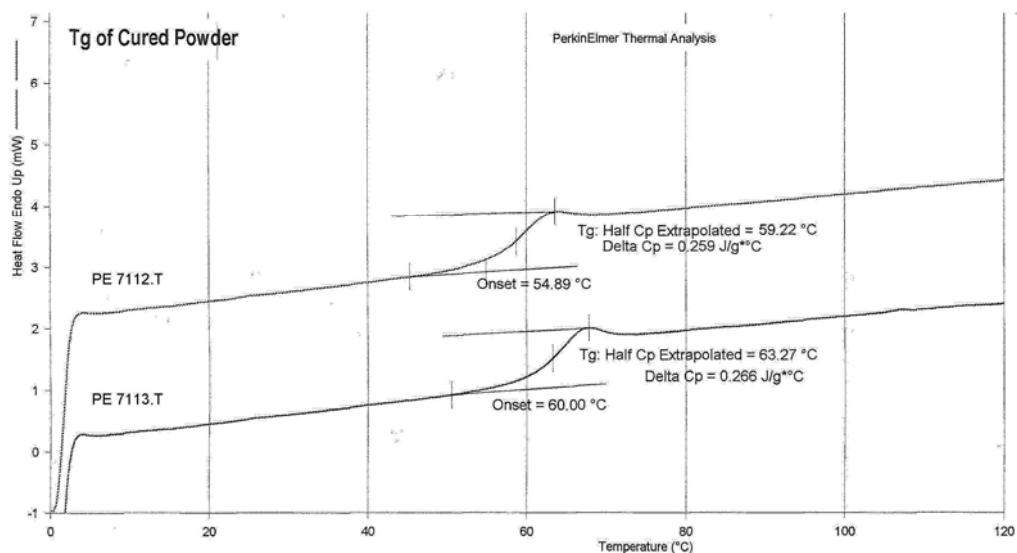
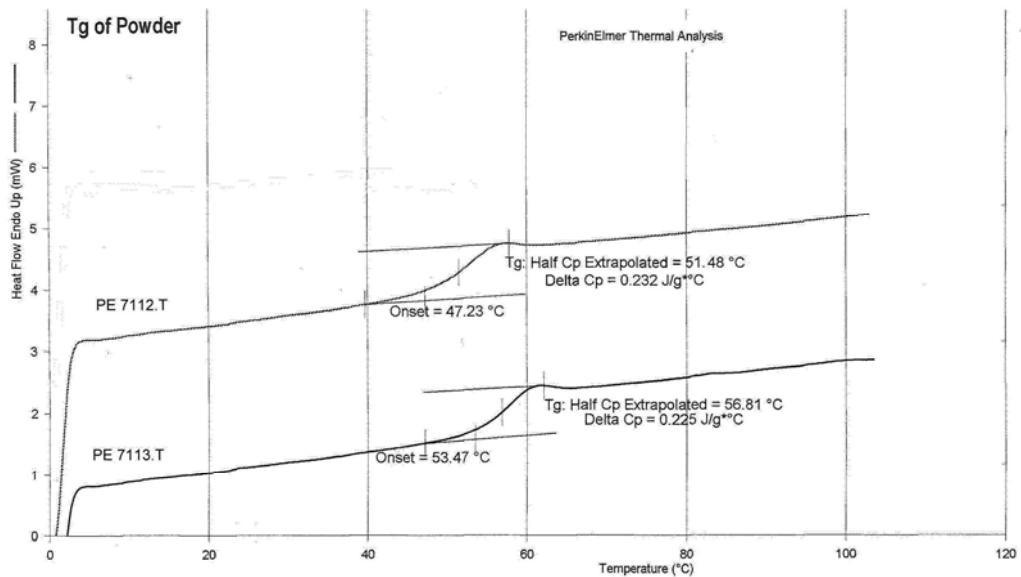
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SIRALES[®] PE 7113.T

APPLICATION DATA
RS/7113/111401/2

Tg's evaluation : DSC Perkin Elmer mod. Diamond



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SIRALES[®] PE 7204.T

PRODUCT DATA
SHEET
RS/343/101901/1

Description

Carboxylated polyester resin free from trimellitic anhydride, suitable for outdoor powder coatings.

Experimental resin. The specifications could be refined without any notice. In case of any question, please contact our sales department.

Applications

Sirales[®] PE 7204.T, in combination with β -hydroxyalkylamide (ratio 97/3) makes achievable a low-demand of hardener powder coating durable for outdoor purposes featuring a good flow, as well as mechanical and ageing characteristics. When combined by dry-blend technique with high reactivity coatings, based on Sirales[®] PE 7220, PE 7260 and PE 7270, allows to obtain a very good matt finishing. The paints based on Sirales[®] PE 7204.T show a good tribochargeability.

Curing cycles (real time)

10 - 12 min. at 200°C

15 - 20 min. at 180°C

Sales specification

Property	Value	Unit	Method
Acid number	18 ... 24	mg KOH/gr	SIR 103281
Viscosity at 200°C	4500 ... 7000	mPa.s	SIR 10391
Colour ⁽¹⁾	3 max.	Sc. Gardner	ASTM D 1544

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

Typical Properties

Property	Value	Unit	Method
Glass transition temperature	60	°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 temperature below 30°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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