

SIRALES[®] PE 7290

PRODUCT DATA SHEET

RS/289/011401/1

Description

Carboxylated polyester resin for superdurable outdoor powder coatings.

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

Application

Sirales[®] PE 7290 in combination with β -hydroxyalkylamides (ratio 93:7) makes achievable outdoor powder coatings for architectural purposes.

The main characteristic of powder paints prepared are:

- high reactivity;
- enhanced weather resistance;
- good flow and flexibility;
- absence of blooming

Curing cycle : 12 ... 15 min. at 180°C.
(in real time) 20 ... 25 min. at 160°C.

Sales specifications

Property	Value	U.M	Method
Acid number	46 ... 54	mg.KOH/gr	SIR 10328
Viscosity ICI at 200 °C	1500 ... 3000	mPa.s	SIR 10391
Color ⁽¹⁾	2 max.	Sc. Gardner	ASTM D 1544

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

Typical properties

Property	Value	U.M	Method
Glass transition temperature (Tg) ⁽²⁾	55	°C	ASTM D 3418

(2) Determined on DSC (Perkin Elmer series 7) : 20°C/minute.

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 information are provided in the relevant safety data sheet.

SIRALES[®], PROSID[®] : 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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SIRALES[®] PE 7290

APPLICATION DATA
RS/289/011401/1

Starting formulation

Component	[part by weight]
Sirales PE 7290	611
Prosid 411 or H	46
Benzoin	3
Flow control agent ^(§)	10
Titanium dioxide ^(§§)	330

(§) Byk 360/P from BykChemie GmbH;
Resiflow PV 88, Worlee-Chemie 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; 0.6 mm aluminium chromate pretread Al 36 panel (Q-Panels), film thickness approx 60 microns.

Stoving cycles :

12 minutes at 180°C, 25 minutes at 160°C (object temperature)

Properties of starting formulation cured film	Value	Unit	Test method
Impact front / rev [N.m] 1/2" ball	> 4 / > 4	N.m	ASTM D 2794
Accelerated weathering resistance (*) Retention of 50% of initial 60° gloss	800	hours	ASTM G 53

(*) Q-Panel QUV; UVB 313 lamps; 4 hours light at 50°C, 4 hours condensation at 40°C

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SIRALES[®] PE 7495

PRODUCT
DATA SHEET
RS/292/022403/1

Description

Carboxylated polyester resin for superdurable outdoor powder coatings.

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

Application

Sirales[®] PE 7495 in combination with β -hydroxyalkylamides (ratio 95:5) makes achievable outdoor powder coatings for architectural purposes.

The main characteristic of powder paints prepared are:

- enhanced weather resistance
- good flow and flexibility
- yellowing resistance.

Curing cycle 10 ... 15 min. at 200°C.
(object) 15 ... 20 min. at 180°C.

Sales specifications

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

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

Typical properties

Property	Value	U.M	Method
Glass transition temperature (T _g) ⁽²⁾	59	°C	ASTM D 3418

(2) Determined on DSC (Perkin Elmer series 7) : 20°C/minute.

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 information is provided in the relevant safety data sheet.

hours light at 50°C, 4 hours condensation at 40°C

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SIRALES® PE 7499

PRODUCT
DATA SHEET
RS/7499/011402/1

Description

Carboxylated polyester resin suitable for superdurable outdoor powder coatings.

Applications

The resin SIRALES® PE 7499 is suitable for the production of outdoor powder coatings with b – hydroxyalkylamide hardeners (ratio 95:5). It enables to obtain powder coatings with the following characteristics:

- excellent resistance to weather agents like superdurable systems
- very low yellowing even with high temperature curing cycles.
- good mechanical properties, with a very good flow and gloss;

Suggested curing cycles:

(real time) 10 ... 15 minutes at 180°C
15 ... 20 minutes at 160°C

Sales specifications

Property	Value	Unit	Method
Acid number	28 – 36	mg KOH/gr	SIR 10328
Viscosity at 200°C (ICI cone plate)	3000 – 6000	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 (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 (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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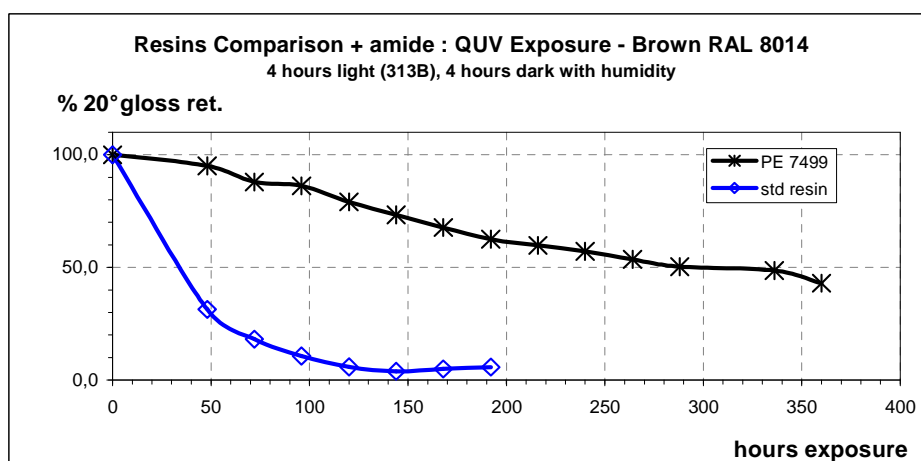
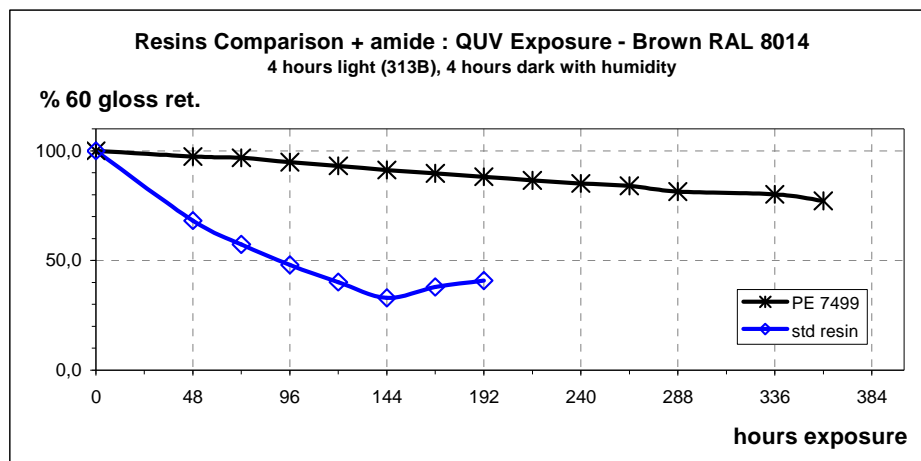
SIRALES[®] PE 7499

PRODUCT
DATA SHEET
RS/7499/011402/2

Accelerated weathering test : Q Panel UV 313B.

Formulation:	pbw
Polyester resin	618
Prosid 411	32
Byk 360/P	12
Benzoin	4
Brown Pigments	50
Barium Sulphate	300

Curing cycle: 15 minutes at 180°C



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SIRALES[®] PE 7500

PROVISIONAL
PRODUCT
DATA SHEET
RS/185/030601/1

Description

Carboxylated polyester resin suitable for outdoor powder coatings.

Applications

The resin SIRALES[®] PE 7500 is suitable for the production of outdoor powder coatings with b – hydroxyalkylamide hardeners (ratio 95:5). It enables to obtain powder coatings with the following characteristics:

- excellent resistance to weather agents like superdurable systems
- optimal mechanical properties, with a very good flow and gloss;
- very low yellowing even with high temperature curing cycles.

Suggested curing cycles:

(real time) 10 ... 12 minutes at 180°C
15 ... 20 minutes at 160°C

Sales specifications

Property	Value	Unit	Method
Acid number	28 – 36	mg KOH/gr	SIR 10328
Viscosity at 200°C (ICI cone plate)	3000 – 7000	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 (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.

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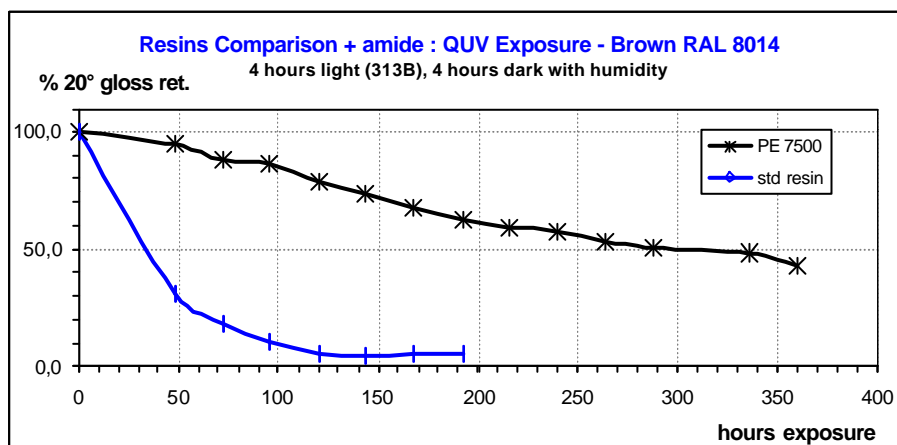
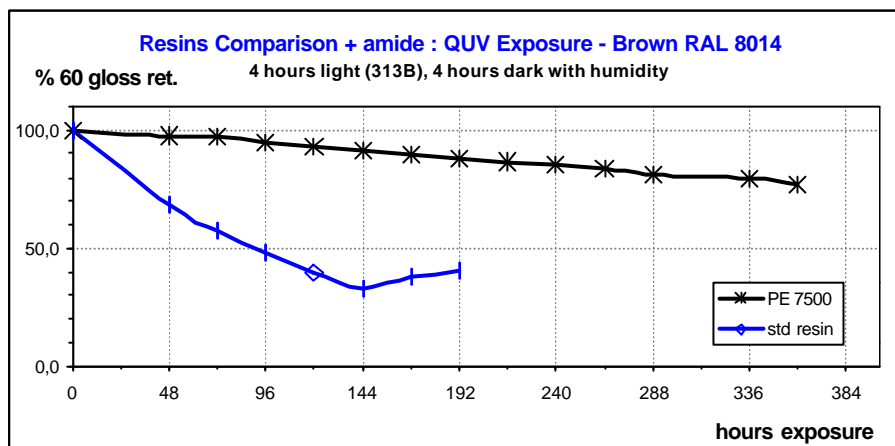
SIRALES[®] PE 7500

PROVISIONAL
PRODUCT
DATA SHEET
RS/185/030601/2

Accelerated weathering test : Q Panel UV 313B.

Formulation:	pbw
Polyester resin	618
Prosid 411	32
Byk 360/P	12
Benzoin	4
Brown Pigments	50
Barium Sulphate	300

Curing cycle: 15 minutes at 180°C



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