BIOSIRCLE® SPP 9500

DATA SHEET
RS/BIOCIRCLE/082401/2

Description

Carboxylated polyester resin for outdoor powder coatings containing raw materials from renewable sources (Minimum 14% up to 40% with Bio Neopentyl glycol).

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

Applications

Biosircle® SPP 9500 in combination with the hardener based on β-hydroalkylamides (ratio 95/5), makes achievable a powder coating for architectural purposes.

The main characteristics are:

- good mechanical properties; excellent resistance to weather agents
- good flow and smoothness.
- suitable for tribo gun applications

Sales specification

Property	Value	Unit	Method
Acid number	30 – 38	mg KOH/gr	SIR 10328
Viscosity at 200°C (C&P)	2000 – 4000	mPa.s	SIR 10391
Colour(1)	3 max.	Sc. Gardner	ASTM D 1544

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

Typical Properties

Property	Value	Unit	Method
Glass transition temperature (Tg)	52	°C	ASTM D 3418

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

Std formulation:

- Resin was formulated in the following 95/5 Recipe

Name of product	Parts per Weight
Biosircle® SPP 9500	618
Crosslinker	32
Flow agent BYK 360/P	10
Degasing agent (Benzoin)	2
White filler (TiO2 K 2310)	350

Std gel time (190°C)

Property	Norm	Industry REF	SPP 9500
Gel time (190°C)	Sec	120 - 160	140

- Extruded on BUSS PLK 46 , range of temperature 30°C to 120°C; speed of screw 170/180 Rpm ; 2 passing through .
  - Recipe Very stable in viscosity and consistence
- Application on metal substrate with CORONA gun
- Cycle time for post curing
  - 15’ (object) curing time after spray up at 200°C
  - 20’ (object) curing time after spray up at 180°C
- curing time after spray up :
  - 15’mn at 200°C

Property	Norm	Industry REF	SPP 9500
Thickness	Microns	70 - 90	85
Whiteness	CIE10	≥ 82	84
Film Aspect	SIR	Glossy	Glossy
Distension	SIR (0/10)	6 - 7	7
Gloss 60°	Din253	≥ 92	94
Pin holes level	SIR(0/3)	0 - 1	0
Impact Resistance	Front kg.cm	> 99	> 99
Impact Resistance	Reverse kg.cm	> 99	> 99

- curing time after spray up :
  - 20’mn at 180°C

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Impact Resistance	Front kg.cm	≥ 80	> 99
Impact Resistance	Reverse kg.cm	≥ 80	> 99

Supply Form
Product is available in a 225 kg lined drum, 1000 kg container and bulk.

Storage stability
The product should be stored in the original containers, in dry ambient, protected against light and direct sun-rays at temperature ranging from 5 to 30°C. In these conditions, it is stable for one year.

Safety
For safety and handling please, refer to safety data sheet of product.