

WATERBOND SR 1900 / SD 1905

Versatile Waterborne Epoxy System

Waterbond SR 1900 / SD 1905 is a versatile waterborne epoxy system with the most common uses are the impregnation of porous surfaces (concrete, wood, cardboard, paper, medium, plaster, etc.) as a primer. It can also be used as varnish on UV unexposed parts.

It is applicable to graining brush, brush, short nap roller and sponge. The resin is whitish during the application and becomes colorless when water is completely evaporated (approximately 30 min at 25 ° C and 50% humidity in the air).

- Excellent curing at room temperature
 - Crosslinking from 15 °C
 - Powerful adhesion to wood and concrete
- Water-cleanable

Resin

		SR 1900
Aspect		Liquid « creamy »
Color		White
Viscosity (mPa.s)	15 °C	11 500 ± 2 300
Rheometer CP 50 mm	20 °C	9 700 ± 1 940
Shear rate 10 s ⁻¹	25 °C	8 200 ± 1 640
	30 °C	6 100 ± 1 220
	40 °C	1 900 ± 380
Density	20 °C	1,107 ± 0,005
Storage stability		12 months at 25 ° C Keep away from cold temperature and frost. Store at room temperature

Hardener

		SD 1905
Aspect		Liquid « creamy »
Color		White-off
Viscosity (mPa.s)	15 °C	4 950 ± 990
	20 °C	4 400 ± 880
	25 °C	3 770 ± 750
	30 °C	3 220 ± 640
	40 °C	2 130 ± 425
Density	20 °C	1,091 ± 0,005
Storage stability		12 months at 25 ° C Keep away from cold temperature and frost. Store at room temperature

Mix

		SR 1900 / SD 1905
Ratio by weight and by volume		1 / 1
Density	20 °C	1,100 ± 0,005

Spreading rate and drying

		SR 1900 / SD 1905
Theoretical spreading rate	g / m ²	100 ± 20
	m ² / L	10 ± 2
Pot life *	25 °C	1 h
Surface (touch) dry*	25 °C	1 to 3 h
Dry to over coat, minimum*	25 °C	5 to 12 h
Dried/cured for service*	25 °C	1 to 2 days

* these values may vary depending on the dilution and ambient humidity. More ambient air is dry, the more drying time will be short. More dilution and the greater the drying time will be long.

Applications

This versatile system can be used as primer and varnish according to dilution.

Table dilutions

Use	SR 1900		SD 1905		Water
Primer	1 vol	+	1 vol	+	2 to 3 vol
Varnish	1 vol	+	1 vol	+	1 vol

Application conditions:

- 15 °C < substrate temperature < 40 °C
- Air hygrometry < 70%

Substrate preparation:

- Surfaces must be clean, degreased and dust free
- Beforehand, we recommend a good surface sanding for a better mechanical bonding.
- The system can be applied on damp substrates (but not soggy)

Implementation:

- Respect resin / hardener ratio
- Mix the 2 components, scrape the sides and bottom of the container and mix again.
- The resin and hardener must be mixed thoroughly before diluting with water. The water used must be clean and fresh.
- Prepare the amount of mix applicable in less than 30 minutes.
- Apply with a graining brush on wooden supports or using a short nap roller for concrete floors. The use of a sponge is possible.

Drying:

- Ensure good ventilation to promote drying of the resin.
- Caution, if the air is saturated with moisture, drying is impossible.

Cleaning:

- With water (refer to the safety data sheet on the disposal of Man and Environment)

After 5 to 12 hours, a second layer of the same system may be applied.

1-2 days after application, the waterborne system is compatible with epoxy, polyester, acrylic, polyurethane system, etc. However, we advise to carry out a preliminary test before any industrial scale application.

*Tests carried out on samples of pure cast resin, without prior degassing, between steel plates.
Measures undertaken according to the following norms:*

Tensile:	ISO 527-2		
Flexion:	ISO 178		
Compression:	ISO 604		
Shear:	ASTM D732-93		
Charpy impact strength:	NF T 51-035		
DSC glass transition:	ISO 11377-2:1999	-5°C to 180°C under nitrogen gas	
		T_{G1} or Onset:	1 st run at 20 °C/min
		T_{G1} maximum or Onset:	2 nd run at 20 °C/min
Glass transition DTMA:	ISO 11357-1 - T_G onset G'	Temperature ramp 0°C to 180 °C @ 2°C/min	
	ASTM D4065 - T_G peak G''	Temperature ramp 0°C to 180 °C @ 2°C/min	
Density:	ISO 2811-1		
Viscosity:	ISO 3219 - Rheometer - CP 50 mm - Shear rate 10 s-1		
Gel time:	Crossing of the G'G' curves method		
GreenCarbon content:	ASTM D6866 or XP CEN/TS 16640 Avril 2014		

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