

## SR 632 / SD 7262

### Epoxy system for wet substrate and underwater application

#### Description

SR 632 / SD 7262 system hardens on wet substrates or under water from 10 °C minimum. The use of the accelerator SA 300 permits a hardening from 5 °C or a faster cure.

This epoxy system has been formulated for emergency repairs under difficult conditions (high level of humidity, low temperature...).

SR 632 / SD 7262 can be used with glass, carbon and aramid reinforcements.

#### Physical Properties

	Temperature	SR 632	SD 7262	Standards
Color		Light yellow	Yellow	
Aspect		Liquid (not filled)	Liquid (not filled)	
Storage		2 years No crystallization	2 years No crystallization	
Viscosity (mPa.s)	@ 5 °C	51 000 ± 5 000	54 000 ± 5 000	Rheometer CP 50 mm Shear rate: 10 s <sup>-1</sup>
	@ 10 °C	18 000 ± 2 000	23 000 ± 2 000	
	@ 15 °C	7 500 ± 1 000	10 500 ± 1 000	
	@ 20 °C	3 500 ± 1 000	5 300 ± 1 000	
	@ 25 °C	1 800 ± 500	2 800 ± 300	
	@ 30 °C	1 000 ± 300	1 600 ± 300	
Density	@ 20 °C	1.15	1.11	

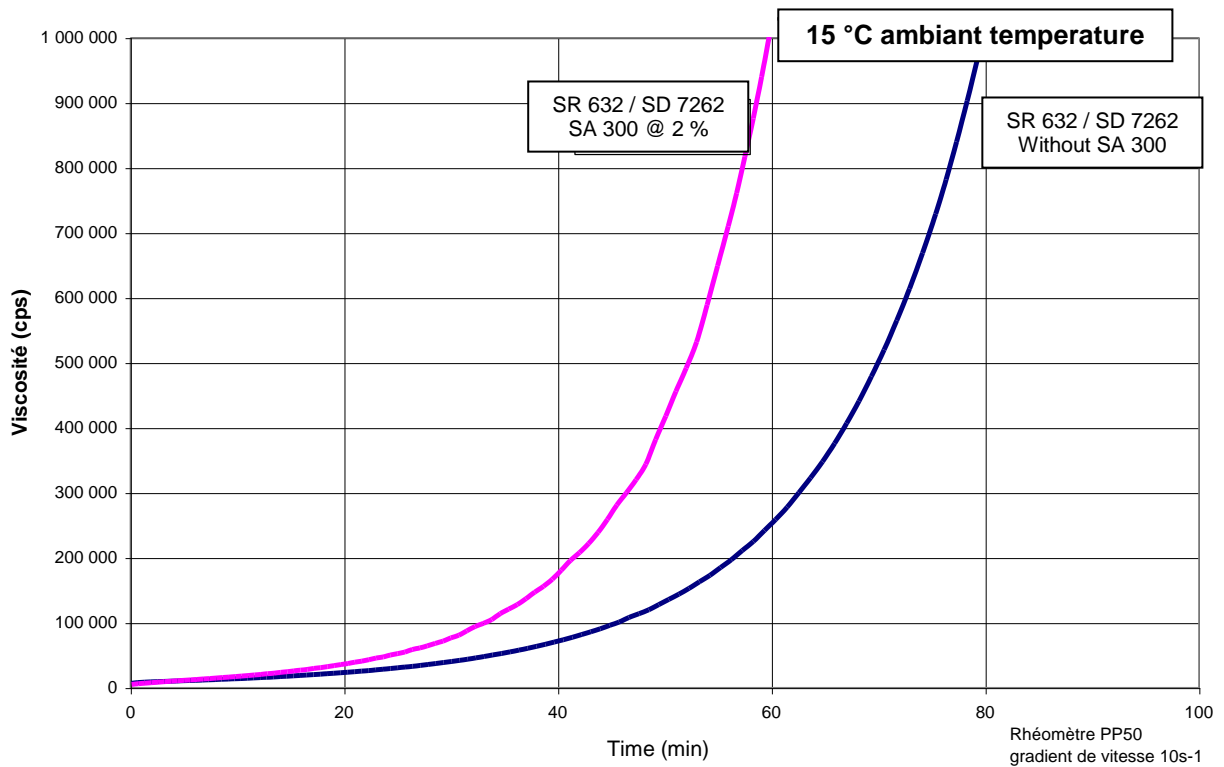
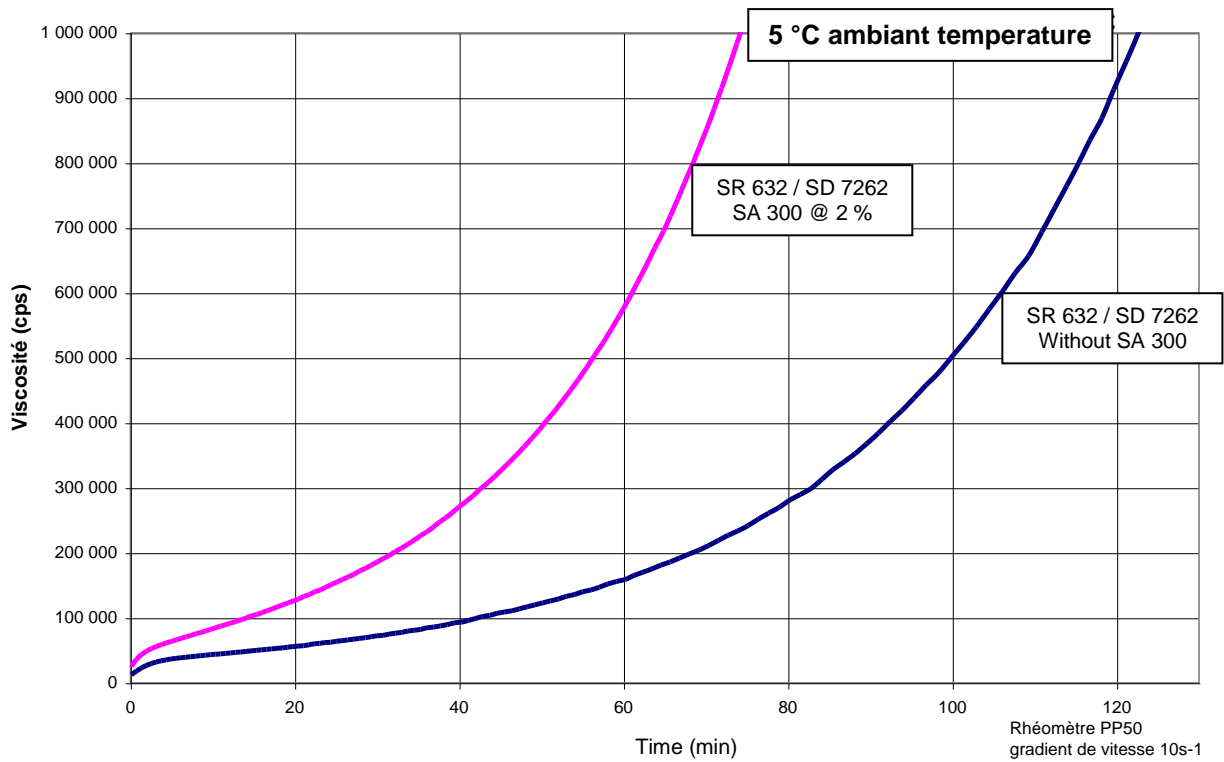
#### Blend Epoxy SR 632 / SD 7262

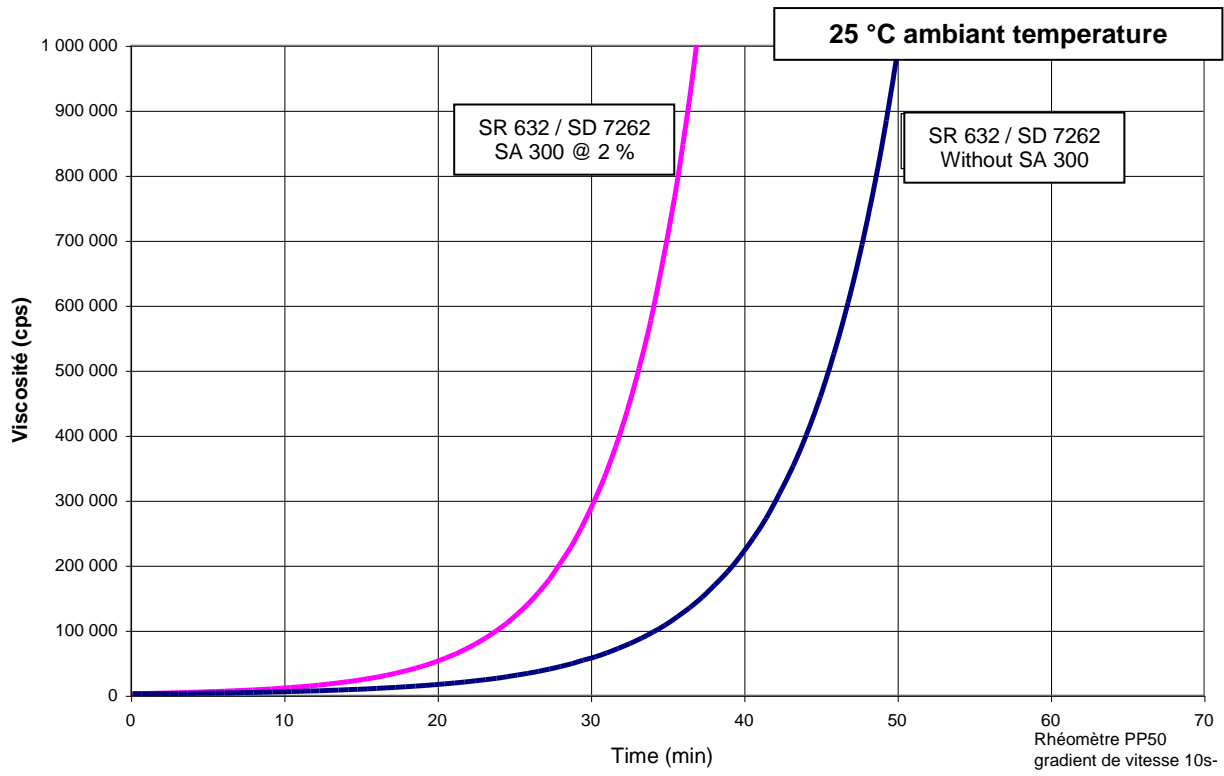
	Temperature	SR 632 / SD 7262	Standards
Color		Light yellow	
Aspect		Liquid (not filled)	
Viscosity (mPa.s)	@ 5 °C	35 000 ± 3 000	Rheometer CP 50 mm Shear rate: 10 s <sup>-1</sup>
	@ 15 °C	5 000 ± 1 000	
	@ 25 °C	2 000 ± 1 000	
Glass transition T <sub>G</sub> max / DSC		70 °C	ISO 11357-2: 1999 -5 à 180°C / N2 / 20°C/min

#### Mixing ratios

	By Weight	By Volume
SR 632	100	2
SD 7262	48	1

Reactivity – Viscosity of a 1 mm thick layer:





### Mechanical properties on cast resin

		<b>SR 632 / SD 7262</b>	
		24 h @ Ta + 24h @ 40°C	24 h @ Ta + 6 h @ 60° C
<b>Curing Schedule</b> <span style="color: green; font-size: 2em;">➔</span>			
<b>Tensile</b>			
Modulus of elasticity	N/mm <sup>2</sup>	3150	3060
Maximum strength	N/mm <sup>2</sup>	59	80
Strength at break	N/mm <sup>2</sup>	59	75
Deformation at max load	%	2.2	3.9
Deformation at break	%	2.2	4.2
<b>Flexion</b>			
Modulus of elasticity	N/mm <sup>2</sup>	3630	3220
Maximum strength	N/mm <sup>2</sup>	125	127
Deformation at max load	%	4.9	5.4
Deformation at break	%	7.2	10.4
<b>Charpy Impact Strength</b>			
	kJ/m <sup>2</sup>	16	14
<b>Glass Transition</b>			
T <sub>G1</sub>	°C	69	69
T <sub>G1</sub> max	°C		70

### Pot-life

No accelerated: 17 minutes on 500 g mix @ 20 °C  
 1% of SA 300: 8 minutes on 500 g mix @ 20 °C  
 2% of SA 300: 6 minutes on 500 g mix @ 20 °C

### Application

SR 632 / SD 7262 bond onto numerous substrates: epoxy and polyester composites, polyurethane, wood, steel, anodised aluminium, glass... when possible degrease the substrate with a solvent (Acetone, Methyl ethyl cetone, alcohol), then sand with coarse sand paper. Respect accurately the mixing ratio, mix thoroughly during two minutes the two components.

Wet substrate: Dry it if possible and sand.

Under water: Sand the area to be repaired, cut the fabrics to size, laminate them one by one on a plastic film and apply it on the area to repair. With a spatula push air and water out by squeegeeing from the middle of the laminate to the outside. Leave the plastic film till the resin is hard.

### Acceleration

SA 300 is a powerful accelerator for epoxy resins.

It is efficient at low ratio and do not modify the properties of the formulated epoxy systems.

SA 300 is mixed with the resin part first before adding the hardener or after the mix resin / hardener.

Do not add SA 300 directly in the hardener.

Mixing ratio: 0,2 to 3 % of the resin amount.

Example: 450 ml of accelerated mix at 1 %

	Mixing ratio	
	By Weight	By Volume
Resin SR 632	297	297
SA 300	3	3 (1 cap = 10 ml 3 ml = 1/3 of cap)

Mix before adding the hardener

SD 7262	144	150
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Mix during 1 to 2 minutes

### Toxicity / Handling advice

SD 7262 is formulated with phenol, work with protective gloves.

In case of contact with the skin, wash quickly with soap.

**Measures undertaken according to the following standards:**

Tests carried out on samples of pure cast resin, without prior degassing, between steel plates.

Tension: ISO 527 - 2  
Flexion: ISO 178  
Charpy impact strength: NF T 51-035  
Shear Strength: ASTM D 732 - 93  
Compression: ISO 604  
Water absorption: Internal. Polymerization according to cycle, machining, weighing, time spent in distilled water at 70 °C / 48 hours, weighing 1 hour after emerging,

Glass transition DSC: ISO 11357-2: 1999 -5°C to 180 °C under nitrogen gas  
 $T_{G1}$  or Onset: 1<sup>st</sup> point at 20 °C/min       $T_{G1}$  maximum or Onset: second passage

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''

**Physical tests according standard:**

Gardner color: NF EN ISO 4630      Visual method  
Refractive index: NF ISO 280  
Viscosity: NF EN ISO 3219      Rheometer 50 mm, shear 10 s<sup>-1</sup>  
Density: NF EN ISO 2811-1      Pycnometer  
Density solid: NF EN ISO 845  
Gel time: Cross G' G''      Rheometer CP50 - Shear rate 10 s<sup>-1</sup>  
Green Carbone content: ASTM D6866 or XP CEN/TS 16640 Avril 2014

AT: Ambient temperature

**LEGAL NOTES:**

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