

SR 632 / SD 7262

Epoxy system for wet substrate and underwater application

Description

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

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

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

Mixing ratios

	By Weight	By Volume
SR 632	100 g	100 ml or 2
SD 7262	48 g	50 ml 1

Physical properties

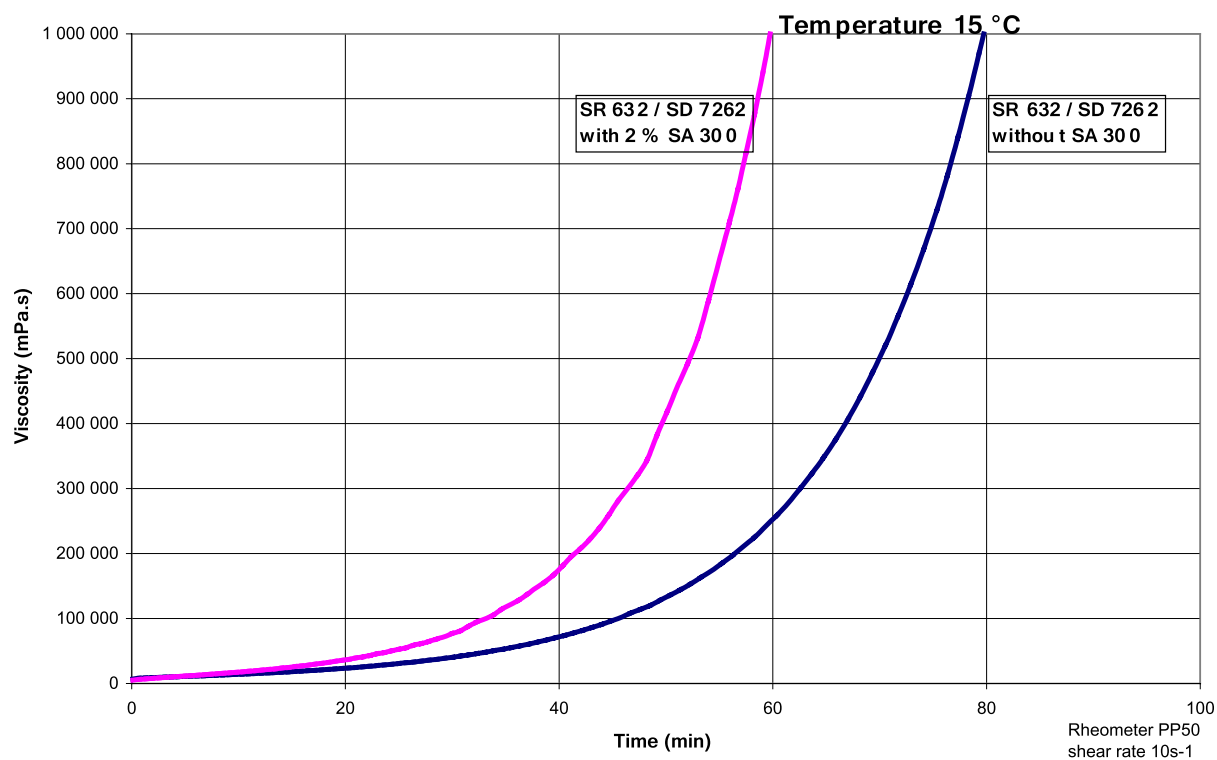
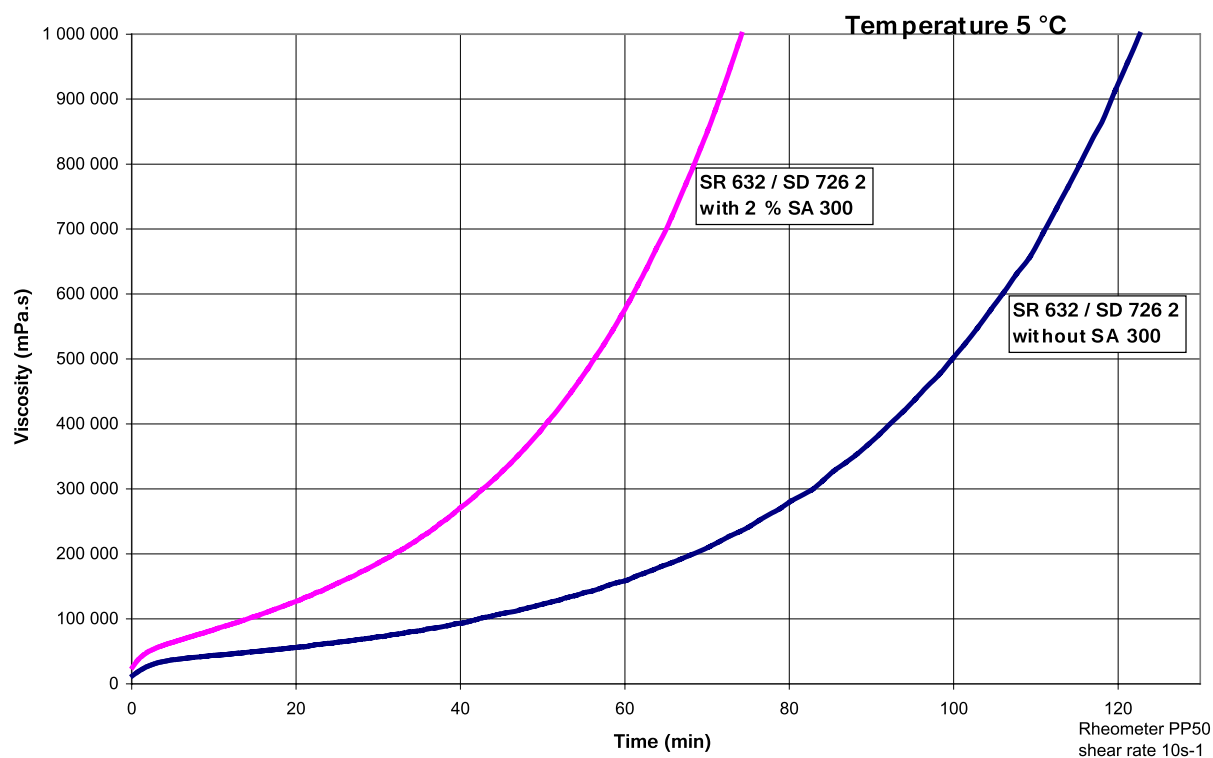
	Temperature	SR 632	SD 7262	Standard
Color		Clear to Yellow	Yellow	
Aspect		Liquid Unfilled	Liquid Unfilled	
Storage		2 years Crystallization free	2 years Crystallization free	
Viscosity (mPa.s)	@ 5 °C @ 10 °C @ 15 °C @ 20 °C @ 25 °C @ 30 °C	51 000 ± 5 000 18 000 ± 2 000 7 500 ± 1 000 3 500 ± 1 000 1 800 ± 500 1 000 ± 300	54 000 ± 5 000 23 000 ± 2 000 10 500 ± 1 000 5 300 ± 1 000 2 800 ± 300 1 600 ± 300	<i>Rheometer CP 50 mm speed 10 s⁻¹</i>
Density	@ 20 °C	1.15	1.11	

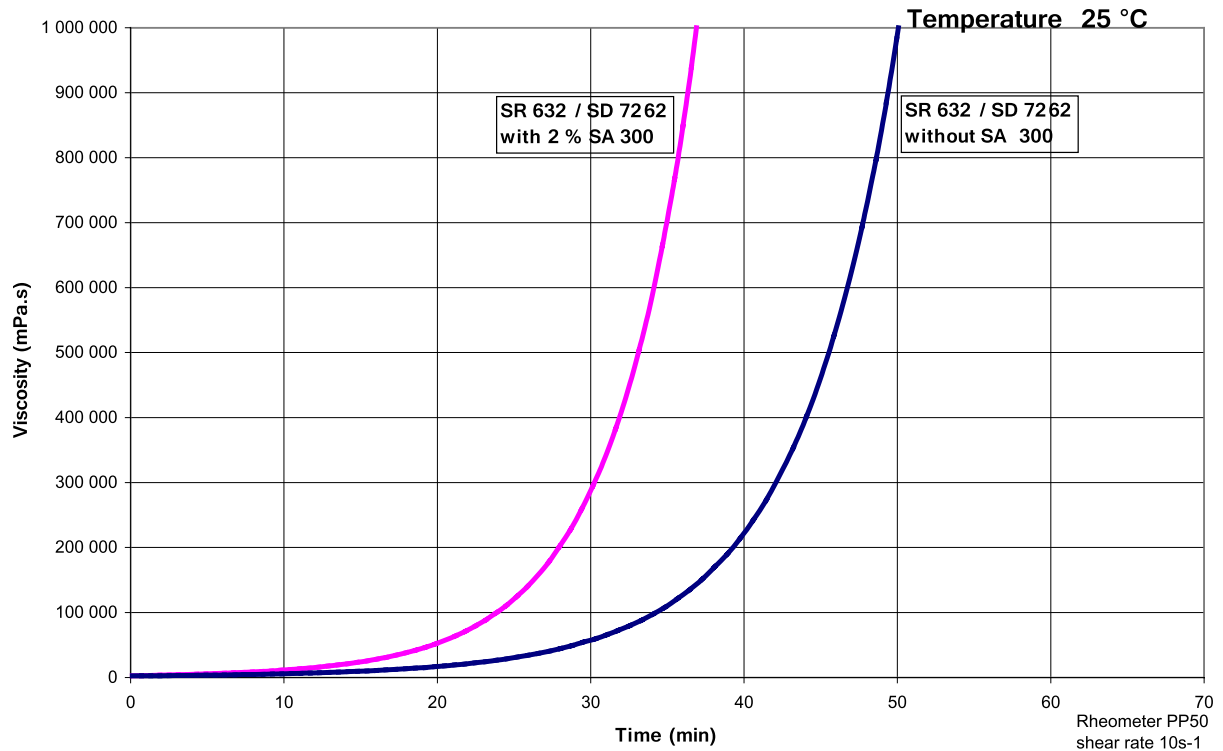
Mix SR 632 / SD 7262

	Ambiant / support / products Temperature	SR 632 / SD 7262	Standard
Color		Yellow	
Aspect		Liquid / Unfilled	
Viscosity (mPa.s)	@ 5 °C @ 15 °C @ 25 °C	35 000 ± 3 000 5 000 ± 1 000 2 000 ± 1 000	<i>Rheometer CP 50 mm speed 10 s⁻¹</i>
Temperature resistance Tg max / DSC*		70 °C	ISO 11357-2: 1999

Pot-life / 500 g mix mix @ 20 °C:

Non accelerated:	17 minutes
1% of SA 300:	8 minutes
2% of SA 300:	6 minutes





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, Methylethyl 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% on the resin quantity.

Example: 450 ml of accelerated mix at 1%

M		Mixing ratio		
		By Weight	By Volume	
Resin SR 632		297 g	297 ml	
SA 300	3	g	3 ml	
SD 7262		144 g	150 ml	
Mix before adding the hardener				
Mix during 1 to 2 minutes				

Mechanical properties of pure resin

		SR 632 / SD 7262	
Cure Schedule		24 h AT + 24 h 40 °C	24 h AT + 6 h 60 °C
Tension			
Modulus of elasticity	N/mm ²	3150	3060
Maximum resistance	N/mm ²	59	80
Resistance at break	N/mm ²	59	75
Elongation at max. resistance	%	2.2	3.9
Elongation at break	%	2.2	4.2
Flexion			
Modulus of elasticity	N/mm ²	3630	3220
Maximum resistance	N/mm ²	125	127
Elongation at max. resistance	%	4.9	5.4
Elongation at break	%	7.2	10.4
Charpy impact strength			
Resilience	KJ/m ²	16	14
Glass Transition / DSC			
Tg 1	°C	69	69
Tg 1 max	°C		70

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

Measures undertaken according to Afnor norms :

Tension: NF T 51-034

Flexion : NF T 51-001

Choc Charpy: NF T 51-035

Glass transition DSC : ISO 11357-2 : 1999 -5°C to 180°C under nitrogen gaz

Tg1 or Onset : 1st point at 20 °C/mn

Tg1 maximum or Onset : second passage

Toxicity / Handling advice

Work with protective gloves.

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

The informations that we give by writing or verbally, in the context of our technical assistance and our trials, do not engage our responsibility. We advice the users of SICOMIN's epoxy system, to verify by some practical trials if our products are suitable for the envisaged processes and applications. The use, the implementation and the transformation of the supplied products, are not under our control and your responsibility only will respond for it.
If our responsibility should nevertheless be involved, it would be, for all the damages, limited to the value of the goods supplied by us and implement by you. We guaranty the non-reproachable quality of our products, in the general context of sales and delivery.

exo

Nom de la méthode: TG 100ul -5/180°C 20°C/mn AzoteU

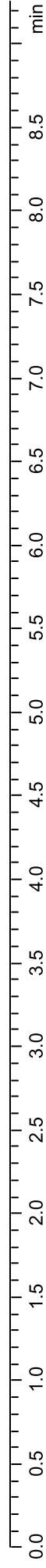
SR632 / SD 7262 1P, 28.04.2005 11:16:46
SR632 / SD 7262 1P, 30.0000 mg

Transition vitreuse
Onset 70.07 °C
Midpoint 80.98 °C
Pt. inflect. 74.23 °C
Pt. final 86.98 °C
Pente inflect. -5.81 mWmin⁻¹
Vit. chauffe 20.00 °Cmin⁻¹
Midpoint DIN 78.73 °C
Midpoint ASTM,IEC 78.53 °C
Delta cp DIN 0.545 Jg⁻¹K⁻¹
Delta cp ASTM,IEC 0.297 Jg⁻¹K⁻¹

SR632 / SD 7262 2P, 28.04.2005 11:35:34
SR632 / SD 7262 2P, 30.0000 mg

Transition vitreuse
Onset 70.66 °C
Midpoint 81.80 °C
Pt. inflect. 77.91 °C
Pt. final 89.66 °C
Pente inflect. -6.12 mWmin⁻¹
Vit. chauffe 20.00 °Cmin⁻¹
Midpoint DIN 80.08 °C
Midpoint ASTM,IEC 80.16 °C
Delta cp DIN 0.609 Jg⁻¹K⁻¹
Delta cp ASTM,IEC 0.372 Jg⁻¹K⁻¹

20
mW



: METTLER

METTLER TOLEDO STAR[®] SW 7.01