



## SR 8500 / SD 2705

### Fuel resistant epoxy laminating system

#### Description

This modified epoxy resin has been formulated to be crystallisation free and low toxicity. This epoxy system has very good wet-out, degassing properties and an excellent adhesion to all type of reinforcements ( glass, aramid, carbon, polyester...)  
SR 8500 cures at ambient temperature, nevertheless it needs a post-cure @ 60-80°C to obtain a good chemical and thermal resistance .

#### Applications

- High performance laminates on small to medium size parts.
- Parts with a service temperature of 80°C
- Design for gasoline tanks.

#### Epoxy resin SR 8500

Aspect / colour		Yellow liquid
Viscosity Brookfield (mPa.s)	@ 20 °C	7500 ± 500
	@ 25 °C	4300 ± 500
Density (g/cm <sup>3</sup> )	@ 20 °C	1.17
Storage		Crystallisation free

#### Hardener SD 2705

Hardener		<b>SD 2705</b>
Type of reactivity		<b>"standard"</b>
Aspect / colour		Yellow liquid
Viscosity Brookfield (m.Pas)	@ 20°C	250 ± 30
	@ 25°C	200 ± 30
Density (g/cm <sup>3</sup> )	@ 20°C	1.09

#### SR 8500 / SD 2705 Mix

		<b>SR 8500 / SD 2705</b>
Viscosity Brookfield (mPa.s)	@ 20°C	2500 ± 300
	@ 25°C	1500 ± 300
Density (g/cm <sup>3</sup> )	@ 20°C	1.15
Mixing ratio by weight		<b>100 g / 20 g</b>
Mixing ratio by volume		<b>100 ml / 22.5 ml</b>



### Reactivity of SR 8500 / SD 2705 mix

	<b>SR 8500 / SD 2705</b>
Time to reach the exothermic temperature on 500g mix	
@ 20 °C	35 min
@ 25 °C	28 min
Time to reach the exothermic temperature on 150g mix	
@ 20 °C	42 min
@ 25 °C	27 min
Working time on 1kg/m <sup>2</sup> laminate(E glass)	
@ 20 °C	3 h 30 min
@ 25 °C	2 h 30 min

### Curing

12 hours @ ambient temperature then 16 hours @ 40°C ( Minimum curing cycle to be done)  
or 12 hours @ ambient temperature then 12 hours @ 60°C  
or 12 hours @ ambient temperature then 6 hours @ 60°C and 4 hours @ 80°C

### Packaging (in Kg)

Kits (kg)	Resin <b>SR 8500</b> (kg)	hardener <b>SD 2705</b> (kg)
238.80	1 x 200	4 x 9.7
34.32	1 x 28.6	2 x 2.86
14.42	1 x 12	1 x 2.42
7.21	1 x 6	1 x 1.21
3.60	1 x 3	1 x 0.6
1.42	1 x 1.2	1 x 0.22

### Safety data (EEC classification 67 / 548 / EEC Directive )

Product	Symbol		Risk phrases
<b>SR 8500</b>		XI : Irritating	R36/38 R51/53 R43 S28 S37/39
		N : Dangerous for the environment	
<b>SD 2705</b>		C : Corrosive	R21/22 R34 R43 S22 S26 S28 S38



## Mechanical properties on cast resin

		SR 8500 / SD 2705			
		6 Days @ 20°C	24 h AT + 24 h @ 40 °C	24 h AT + 16 h @ 60 °C	24 h AT + 8 h @ 80 °C
<b>Tension</b>					
Modulus of elasticity	N/mm <sup>2</sup>	3600	3500	3400	3200
Maximum resistance	N/mm <sup>2</sup>	78	85	87	88
Resistance at break	N/mm <sup>2</sup>	78	85	85	85
Elongation at max.load	%	2.5	3.3	4.9	5.0
Elongation at break	%	2.5	3.3	6.0	6.3
<b>Flexion</b>					
Modulus of elasticity	N/mm <sup>2</sup>	3700	3600	3500	3300
Maximum resistance	N/mm <sup>2</sup>	125	130	133	135
Elongation at max. resistance	%	4.3	5.1	6.0	6.2
Elongation at break	%	4.3	6.3	9.3	11.0
<b>Charpy impact strength</b>					
Resilience	KJ/m <sup>2</sup>	20	25	28	30
<b>Glass transition</b>					
Tg1	°C	50	70	87	103
Tg1 max.	°C				110

AT : Ambient Temperature

Tests carried out on cast resin, without prior degassing, between steel plates.  
Procedures carried out in accordance with AFNOR norms:

Tension : NF T51-034  
Flexion : NF T51-001  
Compression: NF T51-101  
Charpy Impact Strength:: NF T51-501  
Glass transition : DSC Tg 1 = 1° point at 10°C / minute

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