7900 A.B.C.

High temperature epoxy system

7900 ABC is a 3 component epoxy system specially formulated for service temperatures up to 160°C, withstanding peaks up to 210°C.
It can be used for filament winding, press moulding or hand-laminating.
This system has excellent electrical, mechanical and thermal properties.

		Resin SR 7900 A	Hardener SD 7900 B	Accelerator SA 7900 C
Appearance :		Viscous liquid	Liquid	Liquid
Colour		yellow	Colourless	Amber
Viscosity (mPa.s)	@ 25 °C	15 000 ± 1000	240 ± 40	250 ± 20
Equivalent	g / equiv	160 ± 3	178	/
Density (Kg/l)	@ 20 °C	1.17	1.24	0.97

7900 A.B.C. system

Pot life for a 500 g mix	
@ 40°C accelerated with 1.5% of **SA 7900C**	Approx. 7 h
@ 60°C accelerated with 1.5% of **SA 7900C**	Approx. 4 h
Mixing ratio by weight SR 7900**A /** SD 7900**B /** SA 7900**C**	**100 g / 110 g / 0.2 to 3 g**
Mixing ratio by volume SR 7900**A /** SD 7900**B /** SA 7900**C**	**100 ml /105 ml/ 0.2 to 3 ml**

Mixing instructions

Preheat the resin **SR 7900 A** @ 30-40°C and add the correct amount of hardener **SD 7900 B**, mix thoroughly, add the accelerator **SA 7900 C** and mix thoroughly again.
The mix **7900 A.B.C.** will be maintained at 30-40°C to make it easier to work with.
The mix **7900 A.B.C.** at 30°C has a viscosity in between 1000 and 1100 Mpa.s, at 40°C in between 500 and 600 Mpa.s.

Demoulding time of a 2 mm thick laminate, at 95°

SA 7900 C	3 %	1 hour
	2 %	2 hours
	1 %	4 hours

Advised post-cure cycle times

First	4 hours @ 80 - 110°C	demoulding is possible
then	6 hours @ 150-160 °C	
and	4 hours @ 190-210 °C	if a very high temperature resistance is required
Temperature/Time:	10 to 20 °C / h	

Temperature resistance

Tg = 200 - 210 °C

Mechanical properties on cast resin

Products		SR 7900 A SD 7900 B SA 7900 C
Curing cycles		6h @ 60°C + 5h @ 90°C + 6h @ 130°C + 6h @ 170°C
Tension		
Modulus of elasticity	N/mm²	3130
Maximum resistance	N/mm²	36
Resistance at break	N/mm²	36
Elongation at max.load	%	1.2
Elongation at break	%	1.2
Flexion		
Modulus of elasticity	N/mm²	3560
Maximum resistance	N/mm²	118
Elongation at max. resistance	%	3.4
Elongation at break	%	3.4
Charpy Shock		
Resilience	KJ/m²	7
Glass transition		
Tg1	°C	180
Tg1 max.	°C	210

Release agents

Pat 607, Cirex DE 60, Cirex DE 65

Packaging (in Kg)

Kits	Resin **SR 7900A**	Hardener **SD 7900B**	Accelerator **SA 7900C**
424.20	1 x 200	1 x 220	1 x 4.2
64.90	1 x 30	1 x 33	1 x 1.9
21.63	1 x 10	1 x 11	1 x 0.63
5.75	1 x 2.7	1 x 2.97	1 x 0.08
1.93	1 x 0.9	1 x 1	1 x 0.03

Toxicity / Labelling regulation

References	Symbols	Dangers	Risk Phrases
SR 7900 A		Xi Irritating	36/38 - 51/53 - 43
		N Dangerous for the environment	
SD 7900 B		Xn Harmful	21/22 - 36/37/38 - 42
SA 7900 C			