

SR 1500 iG / SD 2505

Self-extinguishing laminating epoxy system Laminate approved M1

SR 1500 iG / SD 2505 has been designed for fire retardant laminates and coating manufacturing, where the mechanical properties of an epoxy is required. This system hardens at room temperature. Nevertheless a post-cure cycle at 50-60°C increase the fire resistance and the thermo-mechanical properties .

Resin / Hardeners blend

		Resin SR 1500 i	Hardener SD 2505
Aspect :		Viscous liquid	Liquid
Colour		Grey White	SR 1500 iG SR 1500 i
Viscosity (mPa.s)	at 20 °C	18 000	280
	at 25 °C	10 700	210
Density (Kg/l)	at 20 °C	1.574	1.00
Storage		Do no crystallise – Can decant	Excellent

System SR 1500 i / SD 2505

Time to reach 50°C on 500 g mix	at 20 °C	34 min
	at 25 °C	25 min
Time and temperature of exothermic peak 500 g mix	at 20 °C	50 min / 194 °C
	at 25 °C	40 min / 200 °C
Maximum working time (for 3 coats of glass fabric of 300 g/sq.m)	at 20 °C	3 hours
	at 25 °C	2 hours
Mixing ratio by Weight SR 1500 i / SD 2505	100 g	17 g

Advised post-cure cycles :

12 hours at 20°C+ 20 hours at 50°C or + 16 hours at 60°C

Fire retardant approval

Classification : Laminate M1
 Organism : National institute of industrial environment and risks (INERIS)
 Approval reference: N° 93-0131 of 18th of January 1993 / Decree of Ministry of Interior

Mechanical properties of laminates based on SR1500i / SD 2505 :

Samples:			
Resin SR 1500i / SD 2505			
Reinforcement		3300	3300
Number of layers		11	13
Process		hand-lay	Press
Weight of fabric (Mf)	%	52.46	58.46
Post-cure cycle		16 h 60°C	16 h 60°C
Tensile			
Modulus	N/mm ²	18 115	22 770
Maximum resistance	N/mm ²	250	280
Elongation at max load	%	1.5	1.6
Flexion			
Modulus	N/mm ²	16 230	22 300
Maximum resistance	N/mm ²	400	495
Elongation at max load	%	2.8	2.6
Bending delaminating			
Shear load at rupture	N/mm ²	34	35
Impact resistance (Charpy shock)			
Resilience	KJ/m ²	110	160
Glass Transition			
Tg 1	°C	74	74
Tg1 max.	°C	76	76




Trials made according to norm:

Tensile :	NF T 57-102
Flexion :	NF T 57-105
Delaminating bending:	NF T 57-104
Impact Charpy:	NF T 57-108
Glass Transition:	DSC 1° point at 10°C / min
Reinforcement 3300:	twill 2 / 2 E glass, 300 g/sq.m

Packaging (in Kg)

Kits	Resin SR 1500 i	Hardener SD 2505
70	2 x 30	10
7	6	1

Toxicity / Labelling

References	Symbol	Danger	Phrases Risks
SR 1500 i		Xi Irritant	36/38 - 51/53 43
		N Dangerous for environment	
SD 2505		C Corrosive	21/22 - 34 - 43

Classification CEE according to Annexe I of Directive 67 / 548 / CEE

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.