



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 Yellow
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	3300
Number of layers		11	13	15
Process		hand-lay	Press	Press
Weight of fabric (Mf)	%	52.46	58.46	62.6
Post-cure cycle		16 h 60°C	16 h 60°C	16 h 60°C
Tensile				
Modulus	N/mm ²	18 115	22 770	27 280
Maximum resistance	N/mm ²	250	280	340
Elongation at max load	%	1.5	1.6	1.7
Flexion				
Modulus	N/mm ²	16 230	22 300	24 730
Maximum resistance	N/mm ²	400	495	545
Elongation at max load	%	2.8	2.6	2.5
Bending delaminating				
Shear load at rupture	N/mm ²	34	35	39
Impact resistance (Charpy shock)				
Resilience	KJ/m ²	110	160	180
Glass Transition				
Tg 1	°C	74	74	74
Tg1 max.	°C	76	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
SD 2505		N Dangerous for environment C Corrosive	21/22 - 34 - 43

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

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