



SR 6890 / SD 6891

Self-extinguishing casting epoxy system

SR 6890 / SD 6891 has been formulated for fire retardant casting and chocking, where the mechanical properties of an epoxy is required.

This system permits the casting of 2 to 3 cm thick for a ambient temperature of 30 to 40 °C.

At lower temperature as 15 to 20 °C, the thickness of the casting can reach 10cm, depending on the material and the geometry of container or mould.

Nevertheless a post-cure cycle at 40 °C increases the fire resistance and the thermo-mechanical properties .

Resin / Hardeners blend

		Resin SR 6890	Hardener SD 6891
Aspect :		Gel	Liquid
Colour		White	Amber
Viscosity (mPa.s)	@ 25 °C	n.a	365 ± 100
	@ 40 °C	n.a	175 ± 50
Density (Kg/l)	@ 20 °C	1.59	1.05
Mixing ratio by Weight		100 g	21 g

n.a: non available

Reactivity of SR 6890 / SD 6891

Time to reach 50 °C on 500 g mix	at 25 °C	3 hours
	at 40 °C	1 hour
Temperature of exothermic peak 500 g mix	at 25 °C	40 to 50 °C
	at 40 °C	150 to 160 °C

Advised post-cure cycles :

12 hours at 40°C

NB: For application at low temperature or casting of thin sections, we would advice the use of "winter" hardener: SD 6895.

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Mechanical properties of cast resin based on SR 6890 / SD 6891

Post cure cycle		48h @ amb.Temp.+ 72 h @ 40 °C
Tensile		
Modulus	N/mm ²	4560
Maximum resistance	N/mm ²	30
Elongation at max load	%	0.7
Flexion		
Modulus	N/mm ²	4750
Maximum resistance	N/mm ²	60
Elongation at max load	%	1.3
Compression		
Compressive yield strength	N/mm ²	84
Offset compressive yield	%	4.5
Impact resistance (Charpy shock)		
Resilience	KJ/m ²	7
Glass Transition		
Tg 1	°C	61
Tg1 max.	°C	66

Trials made according to norm:

Tensile : NF T 57-102
Flexion : NF T 57-105
Impact Charpy: NF T 57-108
Glass Transition: ISO 11357-2:1999 Tg1 = Onset
 20°C / min -5/180 °C under nitrogen

Packaging:

Kit	Resin SR 6890	Hardener SD 6891
29.1 kg	1 x 24 kg	1 x 5.1 kg
6.05 kg	5 kg	1.05

Toxicity / Labelling

References	Symbol	Danger	Phrases Risks
SR 6890		Xi Irritant	36/38 - 51/53 43
SD 6891		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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