

SR 8200 / SD 1229.3

Ultra slow epoxy system

Temperature resistant system for tooling laminating and casting

Description

This low toxicity epoxy system has been formulated to give a very long open time, till 48h at 20°C. The overlay can be done without sanding in this lap of time. This long open time gives an ease of large mould making, no sanding nor peelply required.

As most of materials used for pattern making have low temperature resistance, SR 8200 / SD 1229.3 build up good mechanical properties after a post-cure at 50°C allowing the release. After the release the mould can follow a self standing post-cure.





Physical properties

	Resin SR 8200	Hardener SD 1229.3	
	Liquid	Liquid	
Viscosity (mPa.s)			
@ 15 °C	5960	310	
@ 20 °C	3000	200	
@ 25 °C	1650	130	
@ 30 °C	960	90	<i>Rheometer CP 50 mm Shear rate 10 s⁻¹</i>
@ 40 °C	380	50	
Density 20 °C	1.175	1.009	<i>Picnometer NF EN ISO 2811-1</i>

Mix SR 8200 / SD 1229.3

		SR 8200 / SD 1229.3	
Mix viscosity (mPa.s)	@ 15 °C @ 20 °C @ 25 °C @ 30 °C @ 40 °C	5 150 2 800 1 600 990 440	<i>Rheometer PP 50 mm Shear rate 10 s⁻¹</i>
Mix ratio by weight		100 g / 9 g	
Mix ratio by volume		100 ml / 10.5 ml	
Glass transition Tg1 maximum / Onset		140 °C	<i>ISO 11357-2 : 1999</i>

Toxicity / Labelling regulation

Reference	Symbol	Danger	Risk phrases
SR 8200		Xi Irritant	36/38 - 51/53 - 43
		N Dangerous for the environment	
SD 1229.3		C: Corrosive	22 - 35 - 37 - 43 - 51-53
		N Dangerous for the environment	

EEC Classification according to doc. 1 of directive 67 / 548 / EEC



Kits (kg)

Delivery units	Resin SR 8200	Hardener SD 1229.3
218	200	2 x 9
36.3	33.3	3
13.1	12	2 x 0.54
6.54	6	0.54
3.27	3	0.27

Mechanical properties of pure resin:

Cure Schedule	SR 8200 / SD 1229.3				
	24 h @ 30°C + 12 h @ 50 °C	24 h @ 30 °C+ 12 h @ 50 °C + 6 h @ 80 °C	24 h @ 30 °C+ 12 h @ 50 °C+ 2 h @ 80 °C + 4 h @ 100 °C	24 h @ 30 °C+ 12 h @ 50 °C+ 2 h @ 80 °C+ 2 h @ 100 °C + 2 h @ 120 °C	
Tensile					
Modulus of elasticity	N/mm ²	2970	2640	2500	2370
Maximum resistance	N/mm ²	77	72	69	58
Resistance at break	N/mm ²	77	72	69	58
Elongation at max. resistance	%	3.1	3.9	4.1	3.3
Elongation at break	%	3.1	3.9	4.1	3.3
Flexion					
Modulus of elasticity	N/mm ²	3430	2930	2700	2560
Maximum resistance	N/mm ²	126	111	107	102
Elongation at max. load	%	5.3	5.5	6.2	5.9
Elongation at break	%	6.1	6.5	6.4	5.9
Compression					
Compressive yield strength	N/mm ²				
Offset compressive yield	%				
Charpy impact strength					
Resilience	KJ/m ²	10	12	12	12
Glass Transition / DSC					
Tg 1	°C	80	110	115	131
Tg 1 max	°C				140

Tests carried out on samples of pure cast resin, without prior degassing, between steel plates.

Measures undertaken according to norms :

Tension: NF T 51-034

Flexion : NF T 51-001

Choc Charpy: NF T 51-035

Glass transition DSC : ISO 11357-2 : 1999 -5 to 180 °C under Nitrogen

Tg1 = Onset Tg1 max = second run

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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.