

SR 8100 / SD 1085.x

Epoxy system for porous materials impregnation

SR 8100 Epoxy resin

This modified epoxy resin does not contain « toxic » or « Harmful » classified product (T, Xn). It is a clear low viscosity epoxy system, its mixing ratio is convenient by volume: 2 / 1, for "on site" applications.
SR 8100 system hardens at ambient temperature or for a fast hardening, at 40 – 60°C

SD 1085.x Hardeners

SD 1085.4 : : Standard hardener
SD 1085.7: Slow hardener

Applications:

This epoxy system is suitable for impregnation and reinforcement, of porous materials such as:

- Stone (cracks in marble, granite...) by impregnation.
- Structural wood (Frame work attack by termites) by injection.

When mixed with fillers such as Fillite, sand, quartz; SR 8100 system is adapted for floor surfacing (self-levelling)

SR 8100 Epoxy resin

Aspect/colour	Light yellow liquid (Gardner < 3)	
Storage	Crystallisation free 2 years in its original container, away from moisture. 15°C < Ambient temp. < 25°C	
Density (Kg/l)	@ 20°C	1.158 ± 0.005
Viscosity Brookfield (m.Pas)	@ 20 °C	800 to 1000
	@ 25 °C	500 to 900

SD 1085.x Hardeners

Aspect / colour		SD 1085.4 Yellow liquid	SD 1085.7 Yellow liquid
Reactivity type		Standard	Slow
Viscosity Brookfield (m.Pas)	@ 25 °C	33	19
Density (g/cm ³ ± 0.005)	@ 20 °C	0.988	0.978

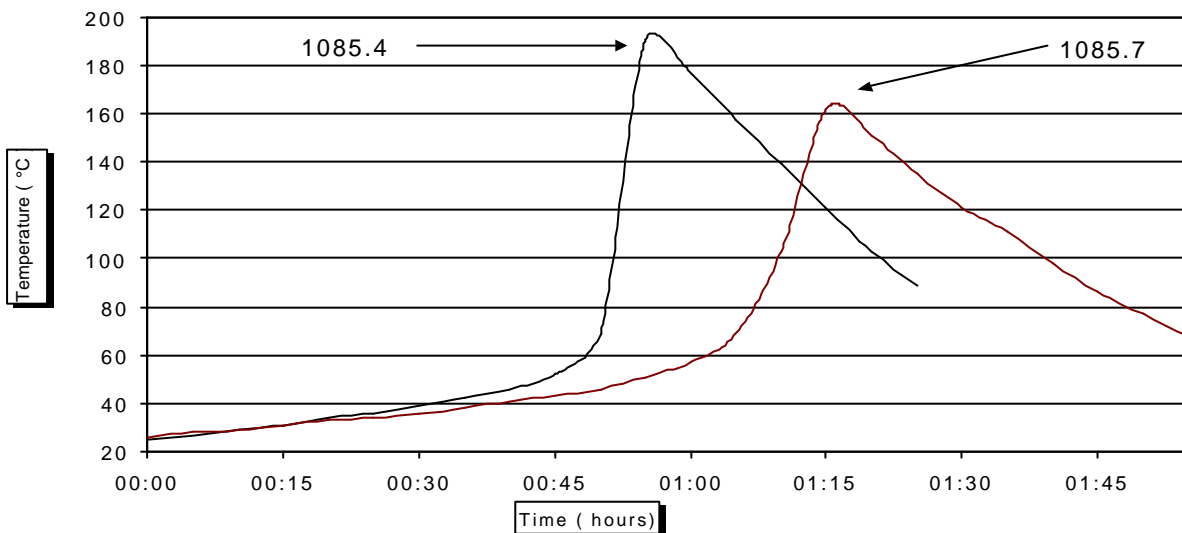
SR 8100 / SD 1085.x Mix

		SR 8100 / SD 1085.4	SR 8100 / SD 1085.7
Viscosity Brookfield (mPa.s)	@ 25°C	190	160
Mixing ratio by weight		100 g / 44 g	100 g / 44 g
Mixing ratio by volume		100 ml / 50 ml or 2 / 1	100 ml / 50 ml or 2 / 1

Reactivity of the mix SR 8100 / SD 1086.x

	SR 8100 / SD 1085.4	SR 8100 / SD 1085.7
Exothermic temperature on 100 g mix @ 25 °C	190 °C	160 °C
Time to reach the exothermic temperature on 100g mix @ 25 °C	1 h	1 h 15'
Time to reach 50 °C on 100 g mix @ 25 °C	45'	55'
Time to be dry to touch on resin film of 500 microns :		
@ 50 °C	45'	1 h 02'
@ 25 °C	3 h 30'	4 h 00'

Exothermic temperature on 100g mix @ 25°C
SR 8100 / SD 1085.x



Packaging (in kg)

Kit sizes	SR 8100	SD 1085.x
576 kg	2 x 200 kg	176 kg
288 kg	200 kg	3 x 29.3 kg
43.2 kg	31.5 kg	3 x 4.62 kg
14.4 kg	12 kg	2 x 2.64 kg

Safety data

References	Symbols	Risk phrases
SR 8100		Xi: Irritant N: Dangerous for the environment R 36/38 R 51/53 R 43
SD 1085.x		C: Corrosive R 21/22 R 34 R 43

EEC Classification in accordance with Annex I of the Directive 67 / 548 / EEC



Mechanical properties on cast resin

		SR 8100 / SD 1085.4		SR 8100 / SD 1085.7	
		24 h @ 23°C + 24 h @ 40°C	24 h @ 23°C + 8 h @ 60°C	24 h @ 23°C + 24 h @ 40°C	24 h @ 23°C + 8 h @ 60°C
Curing cycles					
Tensile					
Modulus of elasticity	N/mm ²	2250	2000	2600	2300
Maximum resistance	N/mm ²	57	54	56	55
Resistance at break	N/mm ²	37	38	34	40
Elongation at max.load	%	3.5	3.5	3.2	3.2
Elongation at break	%	5.6	6.4	7.4	7
Flexion					
Modulus of elasticity	N/mm ²	2700	2700	2500	3000
Maximum resistance	N/mm ²	84	89	81	95
Resistance at break	N/mm ²	46	47	43	48
Elongation at max.load	%	4.5	4.5	4.5	4.2
Elongation at break	%	15	21	16	21
Charpy impact strength					
Resilience	KJ/m ²	58	34	80	78
Glass Transition / DSC					
Tg 1	°C	52	52	53	53
Tg 1 max	°C		52		53

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

Measures undertaken according to Afnor normes :

Tension: NF T 51-034

Flexion : NF T 51-001

Choc Charpy: NF T 51-035

Glass transition : Measure by DSC. Tg1: 1st point à 10°C / mn, Tg 1 max.: 2nd passage 180°C

Water absorbtion: Internal. Polymerization according to cycle, machining, weighting, time spent in distilled water at 70 °C / 48 hours, weighting 1 hour after emerging, drying 24 h at 40°C, weighting, mechanical tests on 10 samples