

Resin / Hardeners Mixes

	SD 8601	SD 8602	SD 8603	SD 8604	SD 8605
Viscosity (m.Pas \pm 50)					
at 20°C	460	675	960	1 300	1 950
at 25°C	350	450	650	850	1275
at 30°C	235	320	455	565	865
Quantity by weight	←		100g / 35g →		
Quantity by volume	100 / 43	100 / 42.5	100 / 41.7	100 / 41	100 / 40



Reactivity

Base hardener	SD 8601	SD 8602	Blends	SD 8604	SD 8605
Ultra slow			SD 8603		Fast
100		75	50	25	0
0		25	50	75	100
Exothermic temperature (°C) on 500 g mix :					
@ 30°C	132	234	245	262	255
@ 25°C	80	217	240	250	246
@ 20°C	33	130	205	236	237
Time to reach the exotherm on 500 g mix :					
@ 30°C	4 H 00	1 H 10'	41'	33'	27'
@ 25°C	8 H 50'	1 H 57'	1 H 00	38'	29'
@ 20°C	15 H 10'	4 H 50'	1 H 55'	1 H 00	39'
Time taken to reach 50 °C / 500 g mix :					
@ 30°C	3 H 00	52'	26'	21'	10'
@ 25°C	7 H 25'	1H 38'	44'	28'	17'
@ 20°C	nm	4 H 15'	1 H 35'	44'	31'
500 microns « dry to touch » film :					
@ 30°C	9 H 00	4 H 45'	3 H 20'	2 H 10'	1 H 45'
@ 25°C	13 H 30'	7 H 00	4 H 45'	2 H 45'	2 H 15'
@ 20°C	18 H 00	9 H 30'	6 H 00	4 H 30'	3 H 00
Latest time to apply vacuum: indicatives values					
@ 30°C	7 h 10'	3 h 50'	2 h 45'	1 h 50'	1 h 20'
@ 25°C	10 h 50'	5 h 35'	3 h 40'	2 h 10'	1 h 50'
@ 20°C	14 h 40'	7 h 35'	4 h 50'	3 h 40'	2 h 20'

Packaging (in kg)

Kits	Resin SR 8500	Hardener SD 860x
810	3 x 200	210
270	200	7 x 10
40.5	30	6 x 1.75
13.5	10	2 x 1.75
4.05	3	1.05
1.35	1	0.35

Toxicity guide

Products	Symbol		Risk phrases
SR 8500		Xi: Irritating N: Dangerous for the environment	R 36/38 R 51/53 R 43
SD 860x		C: Corrosive	R 21/22 R 34 R 43

(EEC Classification according Directive 67 / 548 / EEC)

Conditions of application

Ambient temperature: From 15°C to 40°C
Hygrometry: Below 80%
Temperature of the substrate: 5°C over the dew point

Other formulations

SR 8500 gel :

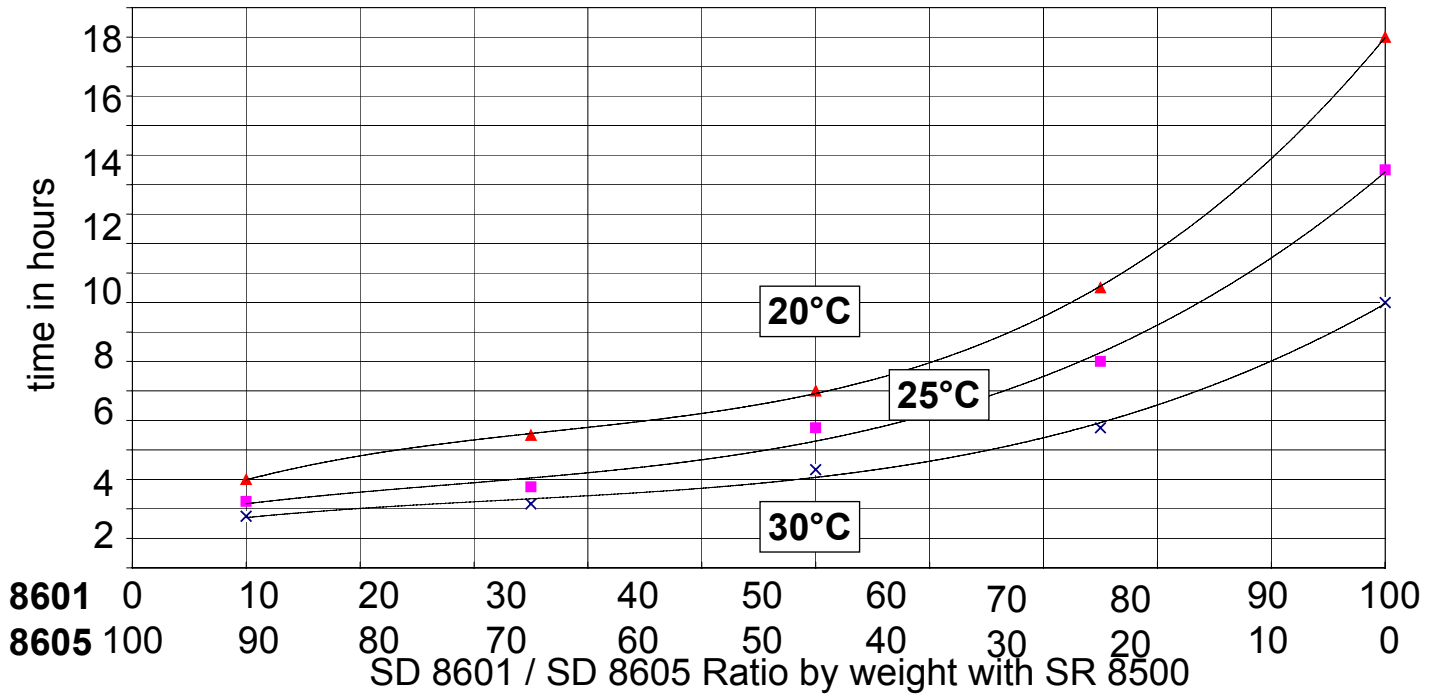
Version : Thixotropic
Colour : Black
Application : Structural bonding of core material
Apply it with toothed spatula on vertical surface or ceiling
Mixing ratio by weight : SR 8500 gel / SD 860x : 100 / 33
Packaging : Tin with total opening
1,5 or 25 kg

CA 85 :

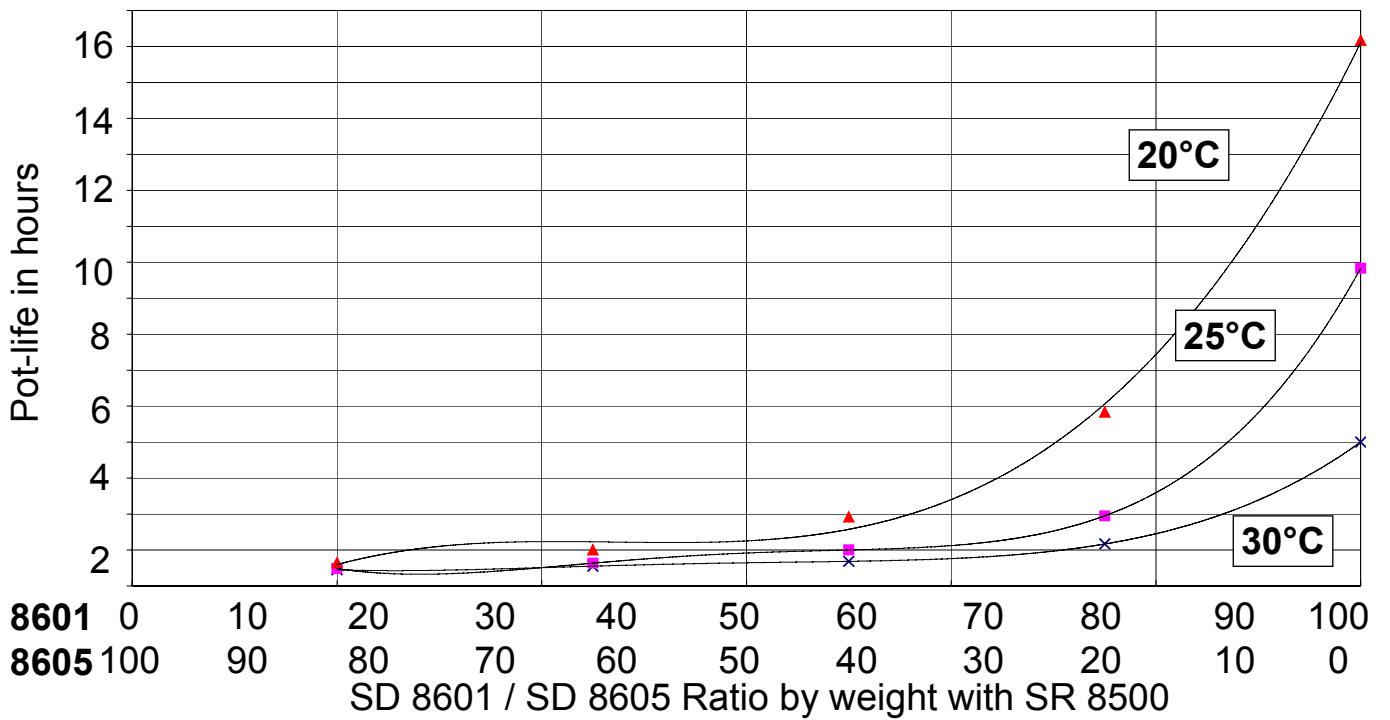
Version : Filled
Colour : White
Application : Important thickness casting.
Structure wedging, harden under water, fire resistant
Mixing ratio by weight : CA 85 / SD 8451 : 100 / 25 slow
CA 85 / SD 8601 : 100 / 17.5 very slow
CA 85 / SD 8451 : 100 / 24 extremely slow
Packaging : Tin with total opening
1,5 or 25 kg

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.

Time to be dry to touch in film on 500 μm



Exotherm on 500 g mix





Mechanical properties of pure resin

		SR 8500 / SD 8601					SR 8500 / SD 8605				
		14 days 23°C	24 h 23°C + 24 h 40°C	24 h 23°C + 15 h 50°C	24 h 23°C + 16 h 60°C	24 h 23°C + 8 h 80°C	7 days 23°C	24 h 23°C + 24 h 40°C	24 h 23°C + 20 h 50°C	24 h 23°C + 8 h 60°C	24 h 23°C + 16 h 60°C
Tension											
Modulus of elasticity	N/mm ²	3390	3350	3250	3070	2800	3580	3500	3300	3390	3320
Maximum resistance	N/mm ²	42	54	77	76	69	72	82	80	80	85
Resistance at break	N/mm ²	42	54	71	72	64	72	80	77	78	83
Elongation at max. resistance	%	1.2	1.7	3.4	3.9	4.0	2.3	3.5	3.3	3.6	4.9
Elongation at break	%	1.2	1.7	4.0	4.7	4.8	2.3	3.7	3.9	4.2	5.7
Flexion											
Modulus of elasticity	N/mm ²	3540	3400	3300	3280	3050	3630	3570	3510	3445	3210
Maximum resistance	N/mm ²	69	102	118	120	112	119	128	128	127	124
Elongation at max. resistance	%	1.8	3.5	4.8	5.3	5.4	4.1	4.9	5.3	5.5	5.8
Elongation at break	%	1.8	8.4	9.0	9.1	10.7	4.2	6.7	7.5	7.2	5.6
Compression											
Compressive yield strength	N/mm ²		104		98	91					
Offset compressive yield	%		5.6		6.2	7.4					
Charpy impact strength											
Resilience	KJ/m ²	9	22	47	54	65	20	25	33	20	32
Glass Transition / DSC											
Tg 1	°C	51	61	71	76	87	58	67	75	79	82
Tg 1 max	°C			83	84	87				91	91

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

Measures undertaken according to Afnor norms :

Tension: NF T 51-034

Flexion : NF T 51-001

Charpy shock: NF T 51-035

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



Mechanical properties of pure resin

Cure Schedule	SR 8500 / SD 8602 hardener blend SD 8601 / SD 8605 75 / 25			SR 8500 / SD 8603 hardener blend SD 8601 / SD 8605 50 / 50			
	24 h 23°C + 24 h 40°C	24 h 23°C + 15 h 50°C	24 h 23°C + 16 h 60°C	7 days 23°C	24 h 23°C + 24 h 40°C	24 h 23°C + 16 h 60°C	
	Tensile						
Modulus of elasticity	N/mm ²	3420	3250	3150	3680	3620	3350
Maximum resistance	N/mm ²	75	79	80	50	85	83
Resistance at break	N/mm ²	74	78	79	50	83	81
Elongation at max. resistance	%	3.2	3.5	3.8	1.3	3.6	3.6
Elongation at break	%	3.5	3.8	4.6	1.3	3.9	4.6
Flexion							
Modulus of elasticity	N/mm ²	3400	3330	3200	3650	3550	3280
Maximum resistance	N/mm ²	115	118	122	93	123	124
Elongation at max. resistance	%	4.0	4.8	5.5	2.5	4.7	5.5
Elongation at break	%	8.3	8.5	8.8	2.5	8.1	8.3
Compressive							
Compressive yield strength	N/mm ²			109			114
Offset compressive yield	%			11.5			10.2
Charpy impact strength	KJ/m ²	25	28	35	15	27	30
Resilience							
Glass Transition / DSC	°C	64	72	78	51	65	81
Tg 1	°C			86			88
Tg 1 max							

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

Measures undertaken according to Afnor norms :

Tension: NF T 51-034

Flexion : NF T 51-001

Charpy Shock: NF T 51-035

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



Mechanical properties of laminates

Sample		SD 8601			Blend hardener SD8601/ SD8605 75 / 25		Blend hardener SD8601/ SD8605 50 / 50		Blend hardener SD8601/ SD8605 25 / 75	
		24 h 40 °C	16 h 60°C	8 h 80°C	SD 8602	SD 8603	SD 8604	SD 8604	SD 8604	SD 8604
Resin SR 8500 /		SD 8601			SD 8602	SD 8603	SD 8604	SD 8604	SD 8604	SD 8604
Reinforcement material		3300			3300	3300	3300	3300	3300	3300
Number of layers		15			15	15	15	15	15	15
Method		Press			Press	Press	Press	Press	Press	Press
Weight of reinforcement (Wf)		74			73	73	73	73	73	73
Cure Schedule		24 h 40 °C	16 h 60°C	8 h 80°C	24 h 40°C	16 h 60°C	24 h 40°C	16 h 60°C	24 h 40°C	16 h 60°C
Flexural										
Modulus	N/mm ²	27 800	28 000	27 600	26900	26 100	23 200	25 000	25 600	25 900
Maximum resistance	N/mm ²	662	668	675	685	680	615	660	675	665
Maximum elongation	%	2.9	2.9	2.9	3.2	3.2	3.3	3.2	3.2	3.2
Bending delamination										
Shear load at break	N/mm ²	51	53	55	53	55	54	59	56	56
Impact (Choc Charpy)										
Resilience	KJ/m ²	186	183	189	200	205	190	205	205	210
Water Absorption										
48 hr water distilled at 70°C	% weight	+ 0.19	+ 0.17	+ 0.15	+ 0.28	+ 0.27	+ 0.28	+ 0.27	+ 0.28	+ 0.26
Glass Transition										
Tg 1	°C	64	76	85	67	82	74	83	68	84
Tg1 max.	°C		84	87		87		88		91

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

Measures undertaken according to Afnor norms :

Flexural: NF T 57-105

Flexural Delamination: NF T 57-104

Impact : NF T 57-108

Glass transition : DSC 1° point at 10°C / mn

Water absorption : Internal. Polymerisation according a cycle, weighing, time spent in water distilled à 70 °C / 48 hours, weighing 1 hr after removal, drying 24 hr / 40°C, weighing, mechanical tests on 10 samples

Reinforcement : 3300: E Glass, 2/2 Twill, 300 g/m²



Exotherm on 500g mix @25°C

