



## SR 1080

### Structural epoxy paste adhesive

#### Description :

Filled epoxy resin, 2 component, 100 % solids content  
Thixotrop consistency for vertical and overhead applications.  
Moisture-tolerant, high modulus, structural epoxy paste adhesive  
Fast setting and strength producing adhesive

#### Previous use :

Bonding concrete, masonry, metals, wood, pultruded epoxy carbon/glass laminate and most structural materials

#### Epoxy resin SR 1080

Aspect / color		Pasty, grey
Consistency		Non sag paste
Density	@ 20 °C	1.25 +/-0.01
Storage stability (10–25 °C)	15–25 °C	2 years, cristalization free decantation after long storage

#### Hardener SD 1080.4

Reactivity type:		Slow
Aspect / color		Liquid, yellow
Viscosity (m.Pas)	@ 20 °C	8000 – 12 000
	@ 25 °C	4000 - 6000
Density	@ 20 °C	1.02 +/-0.01

#### Blend SR 1080 / SD 1080.4

Parts by weight	100 g / 27 g
Parts by volume	100 ml / 33 ml (3/1)
Density of cured systems (kg / l)	1.2

#### Surface preparation :

Must be clean and sound, free of standing water.

Remove dust, laitance, grease and any contaminants.

Concrete : open textured surface by blast cleaning or by dilued chloryde acid treatment (Hcl 3 to 5%).

Steel : prepared thoroughly by blast cleaning

Wood : sand with 40 abrasive

#### Limitations :

Minimum substrate and ambient temperature : 10 °C

Do not thin with solvents.

Minimum age of concrete must be 21-28 days.

Don't modifie epoxy / hardener mixing ratio.

Not for sealing cracks under hydrostatic pressure at time of application.

### Blend Reactivity SR 1080 / SD 1080.4

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Exothermic temperature on 500 g mix	@ 30 °C	170 °C
	@ 20 °C	130 °C
Time to reach the exotherm on 500 g mix	@ 30 °C	40'
	@ 20 °C	1 h 35'
Time to be dry to touch in film:	@ 30 °C	1 h 45'
	@ 20 °C	3 h 25'
Hard film after:	@ 30 °C	3 h 30'
	@ 20 °C	8 h 00'

### Curing



SR 1080 / SD 1080.4 epoxy systems cure at ambient temperature.  
Full cure after: 7 days 25 °C or 48 hr 30 °C or 12 hr 40 °C or 6 hr 60°C

### Packages

Kits (kg)	Mixing	Resin (kg)	Hardener (kg)
	Volume (liters)	SR 1080	SD 1080.4
1	0.83	0.785	0.215
4	3.33	3.14	0.86
38.1	31.7	30	8.1

Add slowly the liquid hardener SD 1080.4 in the epoxy can.  
Mix until uniform consistency. Better results with low speed drill (300 – 700 rpm).  
Kits 1 and 4 kg are “ready to use”: put all hardener in the epoxy part.

### Safety data - (EEC Classification 67 / 548 / EEC Directives)

Products	Labels	Risks Phrases
<b>SR 1080</b>	 <p>Xi: Irritating N : Dangereous for the environment</p>	<p>R 36/38: Irritating to eyes and skin R 51/53: Harmful to aquatic organism, may cause long term adverse effects in aquatic environment R 43: May cause sensitization by skin contact</p>
<b>SD 1080.4</b>	 <p>C: Corrosive</p>	<p>R 21/22: Harmful by skin contact and if swallowed R 34: Causes burn R 43: May cause sensitization by skin contact</p>

In case of skin contact, wash immediatly and thoroughly with soap and water. If symptoms persist, consult a physician.

For eye contact, flush immediatly with plenty of water for at least 15 minutes, contact a physician.

For respiratory problems, remove person to fresh air, if symptoms persist, contact a physician.

In case of ingestion, drink a lot of water and consult a physician.

Remove contaminated clothing.

For more information, consult complete « material safety data sheet »

## Casting resin / Mechanical properties

		<b>SR 1080 / SD 1080.4</b>	
<b>Cycle of polymerisation</b>		24 h 25 °C	24 h 20°C + 24 h 40 °C
<b>Flexion (3 points)</b>			
Modulus of elasticity	N/mm <sup>2</sup>	3500	3450
Maximum resistance	N/mm <sup>2</sup>	53	54
Elongation at max. resistance	%	1.5	1.5
<b>Compressive</b>			
Compressive Yield strength	N/mm <sup>2</sup>	62	70
Offset compressive yield	%	6.6	6.9
<b>Charpy impact strength</b>			
Resilience	Kj/m <sup>2</sup>	5	5
<b>Glass Transition / DSC</b>			
Tg 1	°C	50	65
Tg 1 max	°C		76

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

Measures undertaken according normes :

- Flexion (3 points) : NF T51 - 001
- Compressive : NF T51 - 101
- Tensile : NF T 51\_034
- Choc Charpy: NF T 51-501
- Glass transition: DSC , Tg1: 1<sup>st</sup> point à 10°C / mn Tg 1 max.: 2<sup>nd</sup> passage 180°

