

### DESCRIPTION:

Sureshield is used in a variety of installations and a range of temperature and environmental fluctuations. Understanding the correct use of the Hardener is critical in obtaining a correctly cured system.

Sureshield is available in the following grades:

- Winter:- Generally used: May - October
- Summer:- Generally used: November - April
- Tropical:- Generally used in Off-shore installations. This grade is MTO – (Made to Order)

Generally the Pot life and cure times of the Sureshield are controlled by the volume of hardener addition. However; in certain circumstances the environmental elements will cause a requirement to alter the Gel Time and Cure Time of the material that is outside the parameter of the minimum and maximum additions of the catalysts.

The following are some of the causes of these requirements and may be one or a combination of each.

- Excessive heat – This will cause very short pot life.
- Wind shear - This will strip the styrene from the surface and accelerate the cure.
- Direct Sun – This will cause immediate exotherm and cracking.
- Storage of resin in hot environment.

Always try to ensure that you work in a manner whereby the Resin Flooring is installed in a fashion that the above-mentioned elements are Managed.

### Product tested at Room Temperature @ 19 - 20°C

Component	Sureshield Summer Resin	Sureshield Winter Resin
Dosage of Hardener	1.5%	1.5%
Resin : Aggregate mix ratio	1: 6	1: 6
STZ Hardener (Norox 900)	Gel Time: 58 minutes <i>Cure and Touch Dry Time: 245 minutes</i>	Gel Time: 18 minutes <i>Cure and Touch Dry Time: 83 minutes</i>
Catalyst: Curox M-100	Gel Time: 54 minutes <i>Cure and Touch Dry Time: 220 minutes</i>	Gel Time: 15.5 minutes <i>Cure and Touch Dry Time: 78 minutes</i>
Catalyst: Curox M-200	Gel Time: 52 minutes <i>Cure and Touch Dry Time: 200 minutes</i>	Gel Time: 16.5 minutes <i>Cure and Touch Dry Time: 80 minutes</i>
Catalyst: Norox MCP-75	Gel Time: 74 minutes <i>Cure and Touch Dry Time: 300 minutes</i>	Gel Time: 28 minutes <i>Cure and Touch Dry Time: 125 minutes</i>

So, as you can see the STZ Hardener gives significant working time even at 20 degrees with the Summer Grade Resin.

If you require a longer working / gel time, then MCP75 Catalyst is the correct choice.  
(This will also reduce any shrinkage cracking on coves)

- With the catalyst options above, the catalyst level does not need to drop below 1.5%. (This will ensure a complete cure)
- The absolute minimum level of catalyst is 1%.....however; if you are not weighing the materials correctly and the catalyst levels drop below 1% **you will end up with a failure.**
- Exceeding 3% catalyst level will also have an adverse effect on the system and should not be instigated.

### NOTE \*

- When you get higher ratios of aggregate to resin then the catalyst levels need to be increased.
- Floors - Normal aggregate to resin ratio of 1-part resin to 6 parts aggregate.(maximum)
- Aerosil not mixed correctly into the resin to make “coving butter” will inhibit cure.
- Use STZ Coving Resin as the best solution to solve the issues of unmixed Aerosil.

## Resin : Hardener - Measurement Chart

Resin	Catalyst 1%	Catalyst 1.5%	Catalyst 2%	Catalyst 2.5%	Catalyst 3%
1kg	10 grams	15 grams	20 grams	25 grams	30 grams
1.5kg	15 grams	22.5 grams	30 grams	37.5 gram	45 grams
2.0kg	20 grams	30 grams	40 grams	50 grams	60 grams
2.5kg	25 grams	37.5 grams	50 grams	62.5 gram	75 grams
3.0 kg	30 grams	45 grams	60 grams	75 grams	90 grams
3.5 kg	35 grams	52.5 gram	70 grams	87.5 gram	105 grams
4.0kg	40 grams	60 grams	80 grams	100 grams	120 grams
4.5kg	45 grams	67.5 grams	90 grams	112.5 grams	135 grams
5.0kg	50 grams	75 grams	100 grams	125 grams	150 grams
5.5kg	55 grams	82.5 grams	110 grams	137.5 grams	165 grams
6.0kg	60 grams	90 grams	120 grams	150 grams	180 grams
6.5kg	65 grams	97.5 grams	130 grams	162.5 grams	195 grams
7.0kg	70 grams	105 grams	140 grams	175 grams	210 grams
7.5kg	75 grams	112.5 grams	150 grams	187.5 grams	225 grams
8.0kg	80 grams	120 grams	160 grams	200 grams	240 grams
8.5kg	85 grams	127.5 grams	170 grams	212.5 grams	255 grams
9.0kg	90 grams	135 grams	180 grams	225 grams	270 grams
9.5kg	95 grams	142.50 grams	190 grams	237.5 grams	285 grams
10.0kg	100 grams	150 grams	200 grams	250 grams	300 grams
10.5kg	105 grams	157.5 grams	210 grams	262.5 grams	315 grams
11.0kg	110 grams	165 grams	220 grams	275 grams	330 grams
11.5kg	115 grams	172.50 grams	230 grams	287.5 grams	345 grams
12.0kg	120 grams	180 grams	240 grams	300 grams	360 grams

### CAUTION:

Hardeners require careful handling and all precautions should be taken when handling these products.

### HEALTH & SAFETY: Refer: safety data sheets (SDS).

- Wear gloves.
- Wear appropriate face mask.
- Wash hands with warm, soapy water after any skin contact.
- Re-seal all containers tightly.

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