SC2006
Silicone Resin

SC2006 is a two-part silicone encapsulation compound designed for the protection of electrical devices. It has a good thermal conductivity and performs exceptionally well at high temperatures, making it suitable for applications operating up to 200ºC.

- Good thermal conductivity and excellent high temperature performance
- Extremely soft and flexible; ideal for delicate components and assemblies
- Simple 1:1 mix ratio; aids ease of processing
- Flame retardant; meets UL94 V-0

Approvals	**RoHS-2 Compliant (2011/65/EU):**	**Yes**
	UL Approval:	**Meets UL94 V-0**

Typical Properties

Liquid Properties	Part A Viscosity (mPa s @ 23ºC)	15000
	Part B Viscosity (mPa s @ 23ºC)	10000
	Mixed System Viscosity (mPa s @ 23ºC)	15000
	Mix Ratio (Weight)	1:1
	Mix Ratio (Volume)	1:1
	Gel Time (23°C)	40 mins
	Cure Time (23 °C)	4-16 hours
	Cure Time (70 °C)	<30 minutes
	Colour Part A - Resin	Grey
	Colour Part B - Hardener	White
	Storage Conditions	Above 15ºC, Below 30ºC
	Shelf Life	12 Months
Cured System	Thermal Conductivity (W/m.K)	1.0
	Cured Density (g/ml)	2.23
	Temperature Range (°C)	-50 to +200
	Max Temperature Range (Short Term (°C)/30 mins) (Application and Geometry Dependent)	+225
	Dielectric Strength (kV/mm)	16
	Volume Resistivity (ohm-cm)	10^{14}
	Shore Hardness @ 25ºC	A10 / OO 60
	Colour (Mixed System)	Grey

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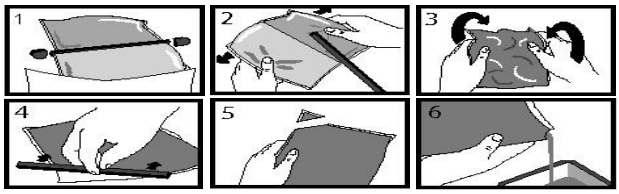
Loss Tangent @ 50 Hz	0.0014
Permittivity @ 50 Hz	2.9
Tensile Strength (MPa)	0.7
10% Stretch Modulus (MPa)	0.4
Elongation at Break	300%

Mixing Procedures

Resin Packs
When in resin pack form, the resin and hardener are mixed by removing the clip and moving the contents around inside the pack until thoroughly mixed. To remove the clip, remove both end caps, grip each end of the pack and pull apart gently. By using the removed clip, take special care to push unmixed material from the corners of the pack. Mixing normally takes from two to four minutes depending on the skill of the operator and the size of the pack. Both the resin and hardener are evacuated prior to packing so the system is ready for use immediately after mixing. The corner may be cut from the pack so that it may be used as a simple dispenser.



Bulk Mixing
When mixing, care must be taken to avoid the introduction of excessive amounts of air. Automatic mixing equipment is available which will not only mix both the resin and hardener accurately in the correct ratio but do this without introducing air. Containers of Part A (Resin) and Part B (Hardener) should be kept sealed at all times when not in use to prevent the ingress of moisture. Bulk material must be thoroughly mixed before use. Incomplete mixing will result in erratic or partial curing.

General
Sedimentation of the resin has been minimised by careful attention to the formulation. However, any sediment which may have occurred over long periods of time must be dispersed before removing any material from the container. This dispersion can be carried out (if necessary) by stirring with a broad bladed spatula or gently rolling the can. Take care not to introduce excessive amounts of air during this operation or it may be necessary to re-evacuate the resin. Sedimentation will be accelerated by storage at high temperatures. Sedimentation found in resin packs forms no problem since the sediment is re-mixed when the pack is used.

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Additional Information

Cleaning: It is far easier for machines & containers to be cleaned before the resin has been allowed to cure. Electrolube's RRS is suitable for cleaning machines and containers and cured resin may be slowly softened and removed by soaking in our RRS.

All surfaces must be clean before resin is applied. Certain materials, chemicals, curing agents and plasticizers can inhibit the cure of silicone encapsulants. Most notable of these include:

- Organotin and other organometallic compounds
- Silicone rubber containing organotin catalyst
- Sulphur, polysulphides, polysulphones or other sulphur containing materials
- Amines, urethanes or amine-containing materials
- Unsaturated hydrocarbon plasticisers
- Some solder flux residues

Curing: Do not heat cure large volumes immediately. Allow these to gel at room temperature and post-cure at high temperature if required (refer to liquid properties for details). Small volumes (250ml) may be heat cured immediately.

Storage: When storing under very cold conditions, the hardener may crystallise. If this occurs, simply warm (40°C) the container gently until all crystals have re-melted.

Health & Safety: Always refer to the Health & Safety data sheet before use. These can be downloaded from www.electrolube.com

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