

# Electrolube® SC3001

## Silicone Resin

### DESCRIPTION

**Electrolube® SC3001** is an optically clear, flexible, two part encapsulating compound. **SC3001** is ideal for use in the LED industry where optical clarity is vital. It is particularly suited to applications where thin films are required due to its moisture cure nature.

READ ENTIRE TECHNICAL BULLETIN BEFORE USING THIS PRODUCT

### FEATURES AND BENEFITS

- Optically clear; ideal for LED applications
- Excellent resistance to yellowing; good resistance to UV light
- Low viscosity and low hardness; can be cut or 'dug out' for rework
- Exceptionally wide temperature range; ideal for applications reaching very high temperatures

### PRODUCT INFORMATION

Please contact your customer service representative for information on available package sizes.

### APPROVALS

Standard	Status
RoHS-2 Compliant (2015/863/EU)	Yes
UL	No

**PHYSICAL PROPERTIES**

Category	Results
<b>Liquid Properties</b>	
Base Material	Silicone
Solids Content	100%
Color Part A Part B	Clear Liquid Clear Liquid
Density (g/mL) Part A Part B	1.05 0.98
Viscosity (mPa s 23 °C) Part A Part B Mixed System	2,000 20 1,800
Mix Ratio Weight Volume	13:1 12:1
Usable Life (20 °C)	30 minutes, humidity dependent
Gel Time (23 °C)	2 to 4 hours, humidity dependent
Cure Time (23 °C)	24 hours, humidity dependent
Storage Conditions	Above 15 °C, Below 30 °C
Shelf Life Part A Part B	24 Months 12 Months
<b>Cured System</b>	
Color (Mixed System)	Water White
Cured Density (g/mL)	1.04
Temperature Range (°C)	-60 to 200

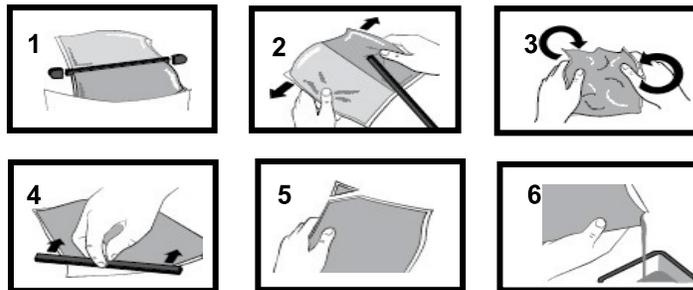
Category	Results
Max Temperature Range (Short Term (°C)/30 Mins) (Application and Geometry Dependent)	+250
Shore Hardness	A20
Volume Resistivity (ohm-cm)	2.3 x 10 <sup>14</sup>
Dielectric Strength (kV/mm)	36
Dielectric Constant @ 50 Hz	3.0
Dielectric Dissipation Factor @ 50 Hz	0.0026
Flame Retardancy	Meets UL 94 HB

**APPLICATION GUIDELINES – RESIN PACKS**

All surfaces must be cleaned before resin is applied. Due to its moisture cure nature, the speed of the cure is dependent on humidity and the thickness of the layer applied, hence thinner films will cure relatively quickly. At a depth of greater than 3cm, SC3001 may take up to 7 days to achieve full cure properties.

**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 three 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. There is also a YouTube video ([Mixing Instructions](#)) available on the Electrolube channel to show the mixing process.



## APPLICATION GUIDELINES - BULK

### 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 or use of the wrong mix ratio will result in erratic or partial curing.

## ADDITIONAL INFORMATION

### Cleaning:

It is far easier for machines & containers to be cleaned before the resin has been allowed to cure. 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 cleaned 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

### Storage:

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

**SAFETY & WARNING**

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use. **Safety Data Sheets are available.**

**CONTACT INFORMATION**

[www.macdermidalpha.com](http://www.macdermidalpha.com)

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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE. Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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