

SCA **Silver Conductive Adhesive**

Product Description

Electrolube SCA is one component, acrylic system, very fast curing silver conductive adhesive. It has excellent flexibility and elasticity which can be maximum increase buffering for different bonding surface so as to protect components. SCA has very low ion content of Cl⁻, Na⁺, K⁺, and the product has excellent adhesive strength, electrical conductivity and thermal conductivity properties. It is suitable for chips bonding in the semiconductor industry. Curing speed of SCA is very fast, curing temperature is low, so it can provide work efficiency maximum.

Application

SCA is suitable for chips bonding in the semiconductor industry. It is also suitable for electrical conductive bonding of LED. The silver adhesive has excellent electrical conductivity, very low surface insulation resistance, bonding strength and thermal conductivity.

Features

- Intermediate temperature setting adhesive, very fast curing (90S @110°C)
- Suitable for chips bonding and electrical conductive bonding of LED
- Excellent flexibility and elasticity, maximum increase buffering for different bonding surface so as to protect components
- Excellent electrical conductivity, and very low surface insulation resistance
- Excellent bonding strength, and excellent thermal conductivity properties
- Very low ion content of Cl⁻, Na⁺, K⁺
- Suitable for high speed automatic screen process press

Approvals:

RoHS Compliant

Yes

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Electrolube cannot be held responsible for the performance of its products within any application determined by the customer, who must satisfy themselves as to the suitability of the product.

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BS EN ISO 9001:2008
Certificate No. FM 32082

Typical Properties:

| | |
|----------------------------------|-------------------|
| Appearance: | silver gray color |
| Filler: | silver |
| Viscosity @ 20 ° C | 12000 ± 1000cps |
| Supporter: | Acrylic resin |
| Thixotropic index: | 4.5 ± 0.2 |
| Work life @ 20 ° C: | 24hrs |
| Storage life @ -40 ° C | 1 year |
| Ionics content @ Cl ⁻ | <5ppm |
| @ Na ⁺ | <5ppm |
| @ K ⁺ | <5ppm |
| pH: | 4.6 ± 0.2 |

Curing properties:

| | |
|---|--|
| Recommended cure condition: | 90s @ 110 ° C (at aluminium sheet) 15s @ 150 ° C (at aluminium sheet) |
| Weight loss after cure@110° C: | <0.45% |
| Weight loss after cure(test by TG): | |
| @150° C | <0.45% |
| @230° C | <0.5% |
| Water extract conductivity: | <35 μ Ω |
| Dynamic tensile modulus: | |
| @-40° C | 6100±100MPa |
| @20° C | 3200±100MPa |
| @150° C | 360±30MPa |
| @250° C | 440±30MPa |
| Thermal conductivity: | 2.2 ± 0.2W/mK |
| Volume resistivity (cured 90s @ 110° C): | 1 ~ 3 × 10 ⁻⁴ Ohms-cm |
| Bond joint resistance (cured 90s@110° C): | 7 ~ 9 × 10 ⁻³ Ohms |
| Die shear strength (cured 90s@110° C): | |
| @25° C | 1.8 ± 0.2 kg/mm ² |
| @150° C | 1.0 ± 0.2 kg/mm ² |
| @200° C | 0.86 ± 0.2 kg/mm ² |

Storage and transport

SCA should be stored and transported at -40°C.