

## AG 803 Silver Epoxy

### Description

AG 803 is a one-part silver conductive adhesive based on epoxy resins. It can be cured and hardened at high temperatures. It is formulated for very good electrical and thermal conductive properties. It is solvent-free, has little volatiles during cure and very low shrinkage. It has great adhesion and good thermal shock performance.

### Applications

1. Bonding IC chip to metal bond pad.
2. General electrical connections.

### Guidelines for Use

1. Thaw the silver epoxy to room temperature (25°C) before use.
2. The silver epoxy may be printed or dispensed on printed circuit boards, semiconductor elements, electrodes or for other connections that require conductivity.
3. The silver epoxy may be cured as per recommended cure table as attached.

### Properties

Property	Test Method	Unit	Typical Value
Chemical type			Epoxy
Appearance	Pen 10		Silver paste
Mix ratio, by weight			One component
Density	Pen 14	g/cm <sup>3</sup>	2.34
Shelf life, -20°C	Pen 26	Month	6
Shelf life, -40°C	Pen 26	Month	12
Pot life, 25°C	Pen 57	Week	1
Viscosity, CAP2000+ viscometer, cap-06, 30rpm, 25°C	Pen 44	cP	25,000
Hardness, cured 150°C /1 hr	Pen 29	Shore D	86
Die Shear Strength	Pen 36	kgf	5.7
Lap Shear Strength	Pen 43	kgf/cm <sup>2</sup>	112
Volume Resistivity	Pen 65	ohm.cm	0.0004
Glass transition temperature, Tg			68
Coef. of thermal expansion alpha-1	Pen 64	ppm/K	45
alpha-2			220
Conducting medium			Silver
Solids content		%	100

### Recommended Cure

Schedule	Temp.	Cure Time
A	120 °C	2 hours
B	150 °C	1 hour
C	170 °C	30 min

### Storage

Tightly close original container of unused product. Store below -20°C. Storing at lower temperatures down to -40°C may prolong shelf life beyond 12 months. However it may take longer time to thaw the product.

### Packaging

- 5 ml EFD syringe
- 10 ml EFD syringe
- 30 ml EFD syringe
- 500 g jar

### Environment, Health & Safety

This product is RoHS compliant. It does not contain any known carcinogenic, mutagenic or teratogenic components.

### Contact Information

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