



# 40-3900

## SILVER FILLED EPOXY RESIN

### DESCRIPTION:

40-3900 is a two component epoxy adhesive filled with silver. This electrically conductive epoxy resin formulation offers continuity of conductivity with an electrical resistivity value of less than  $1 \times 10^{-4}$  ohm-cm. 40-3900 is also well known for its wide operating temperature range, -50 to + 170°C.

40-3900 is specifically designed for adhesive bonding in microelectronic and optoelectronic applications. Due to its excellent continuity, it has also been used extensively in applications such as micro-wave EMI and RFI shielding, in the assembly or repair of printed circuit boards, wave guides, electronic modules, flat cable, high frequency shields, connectors, circuitry, and as a cold solder.

40-3900 is formulated with pure silver (no alloys) and is designed in a convenient 1:1 mix ratio. Both the resin and hardener have silver powder dispersed.

### FEATURES:

- Electrically conductive
- Thermally conductive
- Room temperature cure
- Easy 1:1 mix ratio
- Good bond strength

### TYPICAL SPECIFICATIONS:

Mix Ratio, by Weight	1:1
Color	Silver
Mixed Viscosity	Creamy Paste
Pot Life, 100 gram mass @ 25°C	1 Hour
Specific Gravity, 25°C	
Resin	2.98
Hardener	1.8
Hardness, Shore D	70
Thermal Conductivity, W/m- °K	7.93
Tensile Lapshear, psi (Al to Al)	700
Flexural Strength, psi	10,200
Volume Resistivity, ohm-cm	.0001
Operating Temp. Range, °C	-50 to +170
Cure Schedule	a) 24 hours @ 25°C b) 1 hour @ 65°C c) 15 minutes @ 90°C



### **STORAGE AND HANDLING:**

40-3900 Resin and hardener should be stored at 25°C in original tightly sealed containers. Expected shelf life is twelve months in original unopened containers.

Filler settling is common with these products. Gently stir resin and hardener before using to make sure fillers are evenly dispersed.

### **IMPORTANT:**

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06/14