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102-42

HI-TEMP, ELECTRICALLY CONDUCTIVE ADHESIVE

DESCRIPTION: 102-42 is a single component, silver filled, electrically conductive epoxy adhesive suitable for application by stamping, screen printing, dipping and syringe dispensing. This product is designed for assembling electrical and electronic components. The cure schedule allows for rapid processing and the resulting bond exhibits excellent thermal stability and adhesion at high temperatures. 102-42 is a lower viscosity version of 102-38.

TYPICAL CURED PROPERTIES:

Consistency	Smooth Paste
Filler	Silver
Percent Silver, cured	> 70
Volume Resistivity (Ω -cm)	0.005 max
Solderable	No
Hydrolytic Stability	Excellent
Useful Temperature Range ($^{\circ}$ C)	-55 to +200
Thermal Stability ($^{\circ}$ C)	Good to 325
T-Shear Strength (psi)	1000
Thermal Conductivity (BTU/ft ² hr $^{\circ}$ F/ft)	3.9

SUGGESTED HANDLING & CURING: 102-42 is ready to use as supplied. Apply adhesive to surface to be bonded by hand and/or automatic method and assemble. Apply slight pressure to assure good mating of surfaces and formation of fillet. Best properties for most applications result when cured for 15 to 30 minutes at 150 $^{\circ}$ C. Good properties are obtained on a variety of substrates by curing at temperatures ranging from 120 $^{\circ}$ C to 175 $^{\circ}$ C. Most popular cure is 15 minutes at 150 $^{\circ}$ C. End user is advised to experimentally determine temperature and time best suited for individual applications.

Note: It is not unusual for crystallization of the 102-42 to occur. Warm to 40-45 $^{\circ}$ C in a water bath to return the material to its original viscosity. The crystallization does not affect the performance of the product in any way.

STORAGE: Shelf Life: 3 weeks at 25 $^{\circ}$ C; or 3 months at 5 $^{\circ}$ C; or 6 months at -10 $^{\circ}$ C.

SAFETY & HANDLING: Use with adequate ventilation. Keep away from sparks and open flames. Avoid prolonged contact with skin and breathing of vapors. Wash with soap and water to remove from skin.

All technical information is based on data obtained by CMI personnel and is believed to be reliable. No warranty is either expressed or implied with respect to results or possible infringements on patents.

REVISION DATE: 10/18/93 REVISION: A