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## 120-02

### ELECTRICALLY CONDUCTIVE COATING

**DESCRIPTION:** 120-02 is a screen-printable, electrically conductive ink, coating and adhesive which is particularly useful for electroless plating. This system is designed to maintain stable viscosity during all application methods and has a low odor. The product features excellent adhesion to Kapton, Mylar, glass and a variety of other substrates. Unlike conventional conductive materials, this product is very resistant to abrasion, scratching and thermal aging. Some applications for 120-02 include, but are not limited to, electroless plating, emi/rfi shielding of polyimide flexible circuits, polymer thick film circuitry, membrane switches, conductive ink for polymer thick film circuitry, and coatings for tantalum capacitors.

#### TYPICAL CURED PROPERTIES:

Viscosity (cps)	26,000-30,000
Filler	Silver
Percent Silver (Uncured)%	70.0+/-2.0
Volume Resistance, max. ( $\Omega$ -cm)	0.0001
Solderable	No
Hydrolytic Stability	Excellent
Useful Temperature Range ( $^{\circ}$ C)	-55 to 200
Thermal Stability ( $^{\circ}$ C)	Good to 325

**SUGGESTED HANDLING & CURING:** 120-02 is ready to use as supplied. Further thinning may be accomplished by adding small amounts of butyl cellosolve acetate and/or CMI Thinner #203. Prior to using, be certain to re-suspend silver. Best properties, for most applications, result when cured for 1 hour at 175 $^{\circ}$ C. Alternative cure schedule: 30 minutes at room temperature, then 30 minutes at 85 $^{\circ}$ C, then 60 minutes at 200 $^{\circ}$ C. Good properties are obtained on a variety of substrates by curing at temperatures ranging from 50 $^{\circ}$ C to 150 $^{\circ}$ C. End user is advised to experimentally determine temperature and time best suited for individual applications.

**STORAGE:** Shelf life: 3 months at 25 $^{\circ}$ C; or 6 months at 5 $^{\circ}$ C; or 12 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 suitability in a particular application or possible infringements on patents.*