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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)%	74.0+/-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 results or possible infringements on patents.*

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