



124-12

EXTREMELY CONDUCTIVE INK

DESCRIPTION 124-12 is an ink/coating with extremely high electrical conductivity for application by screen-printing, dipping and syringe dispensing. The product features excellent adhesion to Kapton, Mylar, glass and a variety of other substrates. **The superior conductivity of this product allows the end user to print narrower and/or longer circuit trace lines without compromising overall maximum ohm values.** The proper use of this feature can result in a significant cost saving. Unlike conventional conductive materials, this product is very resistant to abrasion, scratching, flexing and creasing. Some applications for 124-12 include, but are not limited to, RFID antennae, emi/rfi shielding of polyimide flexible circuits, polymer thick film circuitry, membrane switches and coatings for tantalum capacitors.

TYPICAL PROPERTIES:

Viscosity (cps)	26,000 – 30,000
Filler	Silver
Percent Silver (cured)	> 84
Crease Resistance	Excellent
Volume Resistance, max. (Ω -cm)	0.00003
Sheet Resistivity (Ω /square/mil)	0.010
Hydrolytic Stability	Excellent
Useful Temperature Range ($^{\circ}$ C)	-55 to 200

SUGGESTED HANDLING & CURING: 124-12 is ready to use as supplied. Further thinning may be accomplished by adding small amounts of CMI thinner #124-13. Prior to use, be certain to mix well to re-suspend silver. **Best properties** for most applications result when cured for 3 to 5 minutes at 100 $^{\circ}$ C. Excellent properties are also obtained on a variety of substrates by curing at temperatures ranging from 50 $^{\circ}$ C to 175 $^{\circ}$ C. End user is advised to experimentally determine temperature and time best suited for individual applications.

STORAGE: Shelf life: 2 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.

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