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## 126-42

### EXTREMELY CONDUCTIVE INK

**DESCRIPTION:** 126-42 is an ink/coating with extremely high electrical conductivity and a high degree of flexibility for application by screen-printing, dipping and syringe dispensing. The product features excellent adhesion to Kapton, Mylar, 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 or thinner coatings without compromising overall maximum ohm values.** The proper use of this feature can result in a significant cost saving or enhanced performance. Unlike conventional conductive materials, this product is resistant to aggressive solvents such as MEK and acetone and has excellent thermal stability and flexibility. Some applications for 126-42 include, but are not limited to, RFID antennae, emi/rfi shielding of polyimide flexible circuits, polymer thick film circuitry, and membrane switches.

#### TYPICAL PROPERTIES:

Viscosity (cps)	30,000
Filler	Silver
Percent Silver (cured)	> 90
Volume Resistance, max. ( $\Omega$ -cm)	0.00004
Sheet Resistivity ( $\Omega$ /square/mil)	0.015
Hydrolytic Stability	Excellent
Thermal Stability ( $^{\circ}$ C)	Good to +325
Useful Temperature Range ( $^{\circ}$ C)	-55 to +230

**SUGGESTED HANDLING & CURING:** 126-42 is ready to use as supplied. Further thinning may be accomplished by adding small amounts of CMI thinner 102-03 or 113-12. Prior to use, be certain to mix well to re-suspend silver. **Best properties** for most applications result when cured for 1 hour at 150 $^{\circ}$ C. Excellent properties are also obtained on a variety of substrates by curing at temperatures ranging from 100 $^{\circ}$ C to 180 $^{\circ}$ 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 -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.*

**REVISION DATE: 06/30/15 REVISION: A**