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## 123-04

### **CARBON FILLED, POLYIMIDE BASED, CONDUCTIVE INK FOR PRINTED RESISTORS AND POTENTIOMETERS**

**DESCRIPTION:** 123-04 is a pad-printable, high temperature resistant, carbon filled, polyimide based, electrically conductive ink/coating. The product features excellent adhesion to Kapton, glass and a variety of other substrates. Unlike conventional conductive materials, this product is very resistant to abrasion and scratching. Some applications for 123-04 include, but are not limited to, printed resistors, potentiometers, emi/rfi shielding of polyimide flexible circuits, polymer thick film circuitry, and membrane switches.

#### **TYPICAL PROPERTIES:**

Viscosity (cps)	20,000
Filler	Carbon
Volume Resistance ( $\Omega$ -cm)	70
Sheet Resistivity ( $\Omega$ /square/mil)	25,000-30,000
Hydrolytic Stability	Excellent
Useful Temperature Range ( $^{\circ}$ C)	-55 to 210

**SUGGESTED HANDLING & CURING:** 123-04 is ready to use as supplied. Further thinning may be accomplished by adding CMI#113-39 thinner or CMI# 114-20 retarder. Prior to use, be certain to mix well to resuspend filler. **Best properties**, for most applications, result when cured for 1 hour at 200 $^{\circ}$ C. Good properties are also obtained on a variety of substrates by curing for 30 minutes at 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 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.*

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