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123-50

EXTREMELY FLEXIBLE, PAD-PRINTABLE, ELECTRICALLY CONDUCTIVE INK

DESCRIPTION: 123-50 is an extremely flexible, pad printable, electrically conductive ink, coating and adhesive suitable for application by pad printing, dipping and syringe dispensing. This product features excellent adhesion to Kapton, Mylar, glass and a variety of other surfaces. Unlike conventional conductive materials, this product is very resistant to flexing and creasing. Some applications for 123-50 include, but are not limited to, emi/rfi shielding of polyimide flexible circuits, polymer thick film circuitry, membrane switches, electrical attachments for surface mounted devices, and anode coatings for tantalum capacitors. 123-50 is a softer version of 118-43.

TYPICAL CURED PROPERTIES:

Consistency	Smooth Paste
Filler	Silver
Percent Silver, cured	> 85
Crease Resistance	Excellent
Volume Resistivity (Ω -cm)	0.000025
Sheet Resistivity (Ω /sq)	0.01
Glass Transition Temperature ($^{\circ}$ C)	75
Hydrolytic Stability	Excellent
Useful Temperature Range ($^{\circ}$ C)	-55 to +200
Thermal Stability ($^{\circ}$ C)	Good to 325

SUGGESTED HANDLING & CURING: 123-50 is ready to use as supplied. Further thinning may be accomplished by adding small amounts of CMI Thinners #113-39 (fast drying), or 114-20 Retarder (slow drying). Prior to using, be certain to re-suspend silver. Best properties, for most applications, result when cured for 5-10 minutes at 170 $^{\circ}$ C. Good properties are obtained on a variety of substrates by dry and curing at temperatures ranging from 50 $^{\circ}$ C to 180 $^{\circ}$ C. End user is advised to experimentally determine temperature and time best suited for individual applications.

STORAGE: Shelf Life: 12 months at 25 $^{\circ}$ 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.

REVISION DATE: 2/01/05 REVISION: A