



Creative Materials, Inc.
12 Willow Road
Ayer, MA 01432

T 978.391.4700
F 978.391.4705

114-19

PAD PRINTABLE ELECTRICALLY CONDUCTIVE INK

DESCRIPTION: 114-19 is a slow drying, pad printable, electrically conductive ink, coating and adhesive suitable for application by pad printing, screen 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 114-19 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. 114-19 is a slower drying version of 113-37. This product may be blended with 113-37, to control the drying rate of the inks for different pad printing applications.

TYPICAL CURED PROPERTIES:

Consistency	Smooth Paste
Filler	Silver
Percent Silver, cured	> 85
Crease Resistance	Excellent
Volume Resistivity (Ω -cm)	0.00004
Sheet Resistivity (Ω /sq/mil)	0.015
Glass Transition Temperature ($^{\circ}$ C)	75
Hydrolytic Stability	Excellent
Useful Temperature Range ($^{\circ}$ C)	-55 to +200
Thermal Stability ($^{\circ}$ C)	Good to 325
Wet Coverage ($\text{in}^2/\text{gm}/\text{mil}$)	25.0
Specific Gravity (g/cc)	2.47

SUGGESTED HANDLING & CURING: 114-19 is ready to use as supplied. Further thinning may be accomplished by adding small amounts of CMI Thinner #114-20 or CMI Thinner 113-39. Prior to using, be certain to resuspend 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 suitability in a particular application or possible infringements on patents.

REVISION DATE: 9/23/03 REVISION: A