



Creative Materials, Inc.
141 Middlesex Road
Tyngsboro, MA 01879

T 978.649.4700
F 978.649.2040

117-31

PAD-PRINTABLE, PLATEABLE, ELECTRICALLY CONDUCTIVE INK

DESCRIPTION: 117-31 is a pad-printable, electrically conductive ink and coating which is suitable for applications requiring subsequent plating operations. The product features excellent adhesion to Kapton, Mylar, glass and a variety of other substrates. Unlike conventional conductive materials, this product is very resistant to abrasion, scratching and thermal aging. Some applications for 117-31 include, but are not limited to, electroless, and electrolytic plating, anode and cathode coatings for capacitors, and as an underlying coating to prepare surfaces for plating and subsequent soldering. 117-31 can also be used as an underlying coating for decorative plating on various substrates.

TYPICAL PROPERTIES:

Viscosity (cps)	10,000-12,000
Filler	Silver
Percent Silver (cured)	> 78
Volume Resistance, max. (Ω -cm)	0.0001
Solderable	No
Hydrolytic Stability	Excellent
Useful Temperature Range ($^{\circ}$ C)	-55 to 250
Thermal Stability ($^{\circ}$ C)	Good to 325

SUGGESTED HANDLING & CURING: 117-31 is ready to use as supplied. Further thinning may be accomplished by adding small amounts of CMI Thinner #113-39 or for slower drying CMI Thinner# 114-20. Prior to using, be certain to resuspend silver. Best properties, for most applications, result when cured for 1 hour at 175 $^{\circ}$ C with a post cure of 1 hour at 200 $^{\circ}$ C. Good properties are 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: 3 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.