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117-31(i)

PAD-PRINTABLE, PLATEABLE, ELECTRICALLY CONDUCTIVE INK

DESCRIPTION: 117-31(i) 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(i) include, but are not limited to, electro-less, and electrolytic plating, anode and cathode coatings for capacitors, and as an underlying coating for decorative plating on various substrates. 117-31(i) is a version of 117-31 which promotes self nucleation of electro-less plating.

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(i) 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.

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: 11/21/12 REVISION: C