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110-19UT

HIGH TEMPERATURE ELECTRICALLY CONDUCTIVE INK AND ADHESIVE

DESCRIPTION: 110-19UT is an electrically conductive ink and adhesive suitable for application by screen printing, dipping and syringe dispensing and designed with high temperature applications in mind. Unlike conventional conductive materials, his product features a unique high continuous operation temperature and very high glass transition temperature making it especially well-suited for extreme conditions found in furnace, heater, and aerospace applications. This product features excellent adhesion to a wide range of substrates such as Kapton, Mylar, ITO sputtered surfaces, glass and a variety of other surfaces without the addition of treatment via acid or plasma etch. This product is very resistant to flexing and creasing and is suitable for very fine lines and spaces. Some applications for 110-19UT include, but are not limited to, EMI/RFI shielding of polyimide flexible circuits, polymer thick film circuitry, and membrane switches.

TYPICAL CURED PROPERTIES:

Viscosity (cps)	30,000 - 40,000
Filler	Silver
Percent Silver, cured	> 90
Crease Resistance	Excellent
Volume Resistivity* (Ω -cm)	0.00008
Sheet Resistivity* (Ω /sq/mil)	0.03
Solderable	No
Hydrolytic Stability	Excellent
Useful Temperature Range ($^{\circ}$ C)	-55 to +350
Thermal Stability ($^{\circ}$ C)	Good to +410
Wet Coverage (in ² /gm/mil)	19.5
Specific Gravity	3.1

SUGGESTED HANDLING & CURING: 110-19UT is ready to use as supplied. Further thinning may be accomplished by adding small amounts of CMI thinner 102-03. Prior to using, be certain to resuspend silver. Best properties for most applications result when pre-curing for half an hour at 150 $^{\circ}$ C followed by curing for 60 minutes at 250 $^{\circ}$ C. Good properties are obtained on a variety of substrates by dry and curing at temperatures ranging from 180 $^{\circ}$ C to 250 $^{\circ}$ C. End user is advised to experimentally determine temperature and time best suited for individual applications.

STORAGE: Shelf Life – 1 month 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.

**With recommended cure schedule*

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: 5/7/20 REVISION: A