

121-41

CARBON FILLED, POLYIMIDE BASED, CONDUCTIVE INK FOR PRINTED RESISTORS AND POTENTIOMETERS

DESCRIPTION: 121-41 is a high temperature resistant, carbon filled, polyimide based, electrically conductive ink/coating for application by screen-printing, dipping and syringe dispensing. The product features excellent adhesion to FR-4 board, polyimide film, ceramic, glass and a variety of other rigid substrates. Unlike conventional conductive materials, this product is very resistant to abrasion and scratching. Some applications for 121-41 include, but are not limited to, printed resistors, potentiometers and polymer thick film circuitry.

TYPICAL PROPERTIES:

Viscosity (cps)	20,000 – 25,000
Filler	Carbon
Volume Resistance (Ω -cm)	0.025
Sheet Resistivity (Ω /square/mil)	10
Hydrolytic Stability	Excellent
Useful Temperature Range ($^{\circ}$ C)	-55 to 360

SUGGESTED HANDLING & CURING: 121-41 is ready to use as supplied. Further thinning may be accomplished by adding CMI#121-42 thinner. Prior to use, be certain to mix well to re-suspend filler. For most applications, very good properties result when cured for 1 hour at 200 $^{\circ}$ C.

For optimum product performance, a 3-step curing process is recommended. Initially, cure 1 hour at 200 $^{\circ}$ C followed by 1 hour at 300 $^{\circ}$ C with a final cure of 1 hour at 325 $^{\circ}$ C.

Good properties are also obtained on a variety of substrates by curing for 30 minutes at 175 $^{\circ}$ C. End user is advised to experimentally determine temperature and time best suited for individual applications.

STORAGE: Shelf life: 2 weeks at 25 $^{\circ}$ C; 6 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.