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## 120-43

### ANISOTROPICALLY CONDUCTIVE, EPOXY ADHESIVE

**DESCRIPTION:** 120-43 is a screen-printable, anisotropically conductive, epoxy adhesive. This product features excellent adhesion to Kapton, Mylar, glass, aluminum-sputtered substrates and a variety of other substrates. Unlike conventional conductive materials, this product is very resistant to solvents, heat, and thermocycling. Applications for 120-43 include, but are not limited to, conductive splicing of ribbon cables, bonding of flexcircuits to E.L. panels, and electrical attachment of surface mounted devices. This product is useful in application where a short between closely spaced contacts is a concern.

#### TYPICAL CURED PROPERTIES:

Volume Resistivity ( $\Omega$ -cm)	
(X, Y-Axis):	$1 \times 10^{12}$
(Z-Axis):	$1 \times 10^{-4}$
Consistency	Smooth paste
Filler	Nickel
Hydrolytic Stability	Excellent
Useful Temperature Range ( $^{\circ}$ C)	-55 to +200
Thermal Stability ( $^{\circ}$ C)	Good to 325
T-Shear Strength (psi)	1200

**HANDLING & CURING:** Premix 120-43 in its original container before using to resuspend filler. Apply thin film of adhesive (0.6-1.3 mils) to one of the surfaces to be bonded. At this point, the surfaces should be pressed firmly together with 100 - 150 psi. of pressure. Best properties, for most applications, result when cured for 40 minutes at  $155^{\circ}$ C, while maintaining pressure to insure proper mating. Good properties are obtained on a variety of substrates by curing at temperatures ranging from  $130^{\circ}$ C to  $200^{\circ}$ C. End user is advised to experimentally determine temperature, pressure and time best suited for individual applications. **Note:** It is not unusual for crystallization of the 120-43 to occur. Warm to  $40-45^{\circ}$ C in a water bath to return the material to its original viscosity. The crystallization does not effect the performance of the product in any way.

**STORAGE:** Shelf life: 3 weeks at  $25^{\circ}$ C; or 3 months at  $5^{\circ}$ C; or 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.

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.

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