



Creative Materials, Inc.  
12 Willow Road  
Ayer, MA 01432

T 978.391.4700  
F 978.391.4705

## 124-20

### ANISOTROPIC CONDUCTIVE, B-STAGEABLE, EPOXY ADHESIVE

**DESCRIPTION:** 124-20 is a one component, solvent-resistant, anisotropic conductive ink, coating and adhesive. This product features excellent adhesion to Kapton, Mylar, glass, polycarbonate and a variety of other substrates. Unlike conventional conductive materials, this product is very resistant to methyl ethyl ketone. It is also very resistant to scratching and creasing. Applications for 124-20 include, but are not limited to, conductive splicing of ribbon cables, PTF circuits, and electrical attachment of surface mounted devices. This product is useful in applications where shorts between closely spaced contacts are a concern.

#### TYPICAL CURED PROPERTIES:

Volume Resistivity ( $\Omega$ -cm)	
(X, Y Axis)	1x10 <sup>12</sup>
(Z Axis)	0.0001
Consistency	Smooth paste
Hydrolytic Stability	Excellent
Useful Temperature Range ( $^{\circ}$ C)	-55 to +200
Thermal Stability ( $^{\circ}$ C)	Good to 325

**SUGGESTED HANDLING AND CURING:** Material is ready to use as received. Store frozen to maintain consistent flow properties. Allow material to warm up to room temperature before opening container. As an adhesive, apply the 124-20 one or both parts, then mate the parts and cure for one (1) hour at 150 $^{\circ}$ C, or 30 minutes at 175 $^{\circ}$ C, or 15 minutes at 200 $^{\circ}$ C while maintaining pressure. 124-20 can be thinned with small amounts of 113-12 (fast drying), or 102-03 (slow drying) thinners.

**STORAGE:** Shelf Life -2 month at 25 $^{\circ}$ C; or 6 months at -10 $^{\circ}$ C.

**B-STAGE PROCEDURE:** Apply adhesive to substrate. Next apply heat to advance the curing to the non-tacky stage when cooled to room temperature. A temperature of 125 $^{\circ}$ C for 2-3 minutes is required, B-Stage time is mass related. User is encouraged to experiment for optimum drying time at a given temperature. Store on release liner to prevent contamination.

**STORAGE B-STAGED FILM:** Shelf Life - 1 month @ 25 $^{\circ}$ C; or 3 months @ -10 $^{\circ}$ C

**BONDING PROCEDURE:** To use, carefully align parts to be bonded, apply uniform pressure to maintain location. Cure for 15 minutes at 200 $^{\circ}$ C, or 30 minutes at 175 $^{\circ}$ C, or 1 hour at 150 $^{\circ}$ C. (Note cure times given are mass related, timing should start after adhesive and substrates reach curing temperature.)

**SAFETY AND 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 particular application or possible infringements on patents.*

REVISION DATE: 3/3/06 REVISION: A