

Creative Materials, Inc.
12 Willow Road
Ayer, MA 01432T 978.391.4700
F 978.391.4705**125-19****FLEXIBLE, HIGH TEMPERATURE, ELECTRICALLY CONDUCTIVE INK****DESCRIPTION**

125-19 is a flexible, re-workable, electrically conductive, silicone-based ink. This ink features many attributes that are typically associated with our silicone adhesives. The overall balance of peel strength, cohesion, lap shear strength, printability and high temperature holding power provides a versatility that makes this product useful in a wide range of coating, printing, fastening and bonding applications. This product is very resistant to flexing and creasing. Some applications for 125-19 include, but are not limited to, emi/rfi shielding of polyimide flexible circuits, polymer thick film circuitry, and electrical attachments for stress sensitive devices. 125-19 is one of the few conductive inks that can bond/adhere to silicone substrates and surfaces. In addition, it can be bonded to some types of Teflon® surfaces and rubber surfaces.

125-19 is formulated to be screen printed but can also be syringe dispensed, dipped and sprayed. The last two methods require dilution.

UNIQUE FEATURES

- * Excellent Bonding to Difficult Surfaces
- * Wide Range of Applications
- * Screen Printable
- * High Temperature Resistance
- * Re-workable

TYPICAL UNCURED PROPERTIES

| | |
|----------------------------|--------|
| Viscosity (cps) | 23,000 |
| Filler | Silver |
| Percent Silver (cured) | 78 |
| Specific Gravity (water=1) | 2.5 |

TYPICAL CURED PROPERTIES

| | |
|--|--------------|
| Crease Resistance | Excellent |
| Volume Resistance (Ω -cm) | 0.0003 |
| Solderable | No |
| Hydrolytic Stability | Excellent |
| Useful Temperature Range ($^{\circ}$ C) | -70 to +260 |
| Thermal Stability ($^{\circ}$ C) | Good to +325 |
| Thermal Conductivity (W/mK) | 12.07 |

SUGGESTED HANDLING & CURING

125-19 is ready to use as supplied. Further thinning may be accomplished by adding small amounts of CMI 125-07 thinner. Prior to using, be certain to re-suspend silver. If being used as an adhesive, apply thin film of 125-19 to both surfaces to be bonded. Heat for 5 to 10 minutes at 100 $^{\circ}$ C and assemble while still warm. Apply slight pressure to assure good mating of surfaces and formation of fillet. Best properties, for most applications, result when cured for 5 to 10 minutes at 160 $^{\circ}$ C. End user is advised to experimentally determine temperature and time best suited for individual applications. Add 1-2% B-507 catalyst when maximum strength and chemical resistance is needed.

STORAGE

Shelf life: 6 months at 25 $^{\circ}$ C; or 9 months at 5 $^{\circ}$ C; or 12 months at -10 $^{\circ}$ C.

SAFETY & HANDLING:

Contains flammable solvents. Use with adequate ventilation. Keep away from sparks and open flames. Avoid

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: 11/07/16 REVISION: B



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prolonged contact with skin and breathing of vapors. Wash with soap and water to remove from skin.

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