



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

T 978.391.4700  
F 978.391.4705

## 105-07

### FLEXIBLE, THERMALLY CONDUCTIVE ADHESIVE

**DESCRIPTION:** 105-07 is a flexible, thermally conductive, silicone pressure sensitive adhesive. The overall balance of peel strength, cohesion, lap shear strength and high temperature holding power provides a versatility that makes this product useful in a wide range of fastening and bonding applications. This product is very resistant to flexing and creasing and will not decompose, give off volatiles or permit any resin bleed even after long-term exposure to high temperatures.

#### TYPICAL CURED PROPERTIES:

Consistency	Smooth Paste
Filler	Oxide Blend
Crease Resistance	Excellent
Volume Resistance ( $\Omega$ -cm)	$8 \times 10^{14}$
Dielectric Strength (volts/mil)	> 405
Hydrolytic Stability	Excellent
Useful Temperature Range ( $^{\circ}$ C)	-70 to +260
Thermal Stability ( $^{\circ}$ C)	Good to 325
Thermal Conductivity (W/mK)	2.4

**SUGGESTED HANDLING & CURING:** 105-07 is ready to use as supplied. Further thinning may be accomplished by adding small amounts of toluene. Prior to using, be certain to re-suspend fillers. Apply thin film of adhesive 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. Add 1-2% B507 catalyst when maximum strength and chemical resistance is needed. Good properties are obtained on a variety of substrates by curing at temperatures ranging from 50 $^{\circ}$ C to 180 $^{\circ}$ C. End user is advised to experimentally determine temperature and time best suited for individual applications.

**STORAGE:** Shelf life (uncatalyzed): 6 months at 25 $^{\circ}$ C; or 9 months at 5 $^{\circ}$ C; or 12 months at -10 $^{\circ}$ C.  
(NOTE: Use catalyzed product within 24 - 36 hours.)

**SAFETY & HANDLING:** Contains flammable solvents. 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.*

REVISION DATE: 10/9/07 REVISION: B