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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 PROPERTIES:

Consistency	17,500 cps
Filler	Ceramic blend
Crease Resistance	Excellent
Thermal Conductivity (W/m-K)	2.4
Volume Resistance (Ω -cm)	8×10^{14}
Dielectric Strength (volts/mil)	> 405
Hydrolytic Stability	Excellent
Useful Temperature Range ($^{\circ}$ C)	-70 to +260
Thermal Stability ($^{\circ}$ C)	Good to +325

SUGGESTED HANDLING: Before using, 105-07 should be allowed to warm up to room temperature before opening container and should be stirred gently to ensure homogeneity. Further thinning can be accomplished by adding small amounts of 127-05 (slow drying), toluene (fast drying), or xylene (medium drying). For syringes see [syringe handling guidelines](#) for suggestions on maintaining suspension over long term storage.

CURING AND BONDING: Apply thin film of adhesive to both surfaces to be bonded. Heat for 5 to 10 minutes at 100° C and assemble while still warm. Apply slight pressure to assure good mating of surfaces and formation of fillet. Good properties, for most applications, result when cured for 5 to 10 minutes at 150 to 175° C. Add 1 – 2% B-507 catalyst when maximum strength and chemical resistance is needed. Good properties can be attained with cure temperatures ranging from 25 to 250° C but end user is advised to determine cure profile best for each individual application.

STORAGE: Shelf life (uncatalyzed): 3 months at 25° C; or 6 months at 0° C; or 12 months at -20° C. 105-07 packaged in syringes must be kept frozen at -40° C or below.

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.

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