

# Product Data Sheet

## Product

### MCT SD1107-29HV



## SUB-MICRON ELECTRICALLY CONDUCTIVE DIE ATTACH ADHESIVE

**DESCRIPTION:** MCT-SD1107-29HV is a sub-micron, silver-filled, electrically conductive epoxy adhesive. MCT-SD1107-29HV features a fine pitch resolution and is optimized for screen printing and syringe dispensing. This system features excellent thermal and humidity stability, outstanding chemical resistance, and excellent high-temperature properties. Applications include, die attachment of sensors and detectors, printed circuit board fabrication, advanced material composites, sealing, and high-performance coatings. MCT SD1107-29HV provides excellent adhesion to gold plated substrates, as well as tin/lead solder terminated components.

### TYPICAL PROPERTIES:

Filler	Silver (0.5um)
Percent Silver (cured)	> 88
Viscosity (cps, #cp-51 @ 10/s)	Approx. 140,000 cps
Thixotropic Index (1/10)	> 5.5
Volume Resistance (Ω-cm, max.)	0.0002 cured at 150C
Thermal Conductivity (W/m-K)	10.3
Useful Temperature Range (°C)	-55 to +260
Thermal Stability (°C)	Good to +325
Die Shear Strength (psi, Au to Al)	3,400
Glass Transition Temperature (°C)	72
Coefficient of Thermal Expansion:	
Below Tg (ppm/°C)	26.5
Above Tg (ppm/°C)	77

**SUGGESTED HANDLING AND CURING:** MCT SD1107-29HV is ready to use as supplied but can be thinned with MCT113-42 to optimize for printing. Store frozen to maintain consistent flow properties. Before using, be certain to re-suspend silver. Best properties, for most applications, result when cured for 15 – 60 minutes at 80°C followed by 60 minutes at 150°C. Good properties are obtained on a variety of substrates by dry and curing at temperatures ranging from 80°C to 200°C. ***End-user is advised to experimentally determine temperature and time best suited for individual applications***

**STORAGE:** Shelf Life: up to 1 week at 25°C; 6 months at -10°C; or 12 months at -40°C.

**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 the skin.

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