



**CREATIVEMATERIALS**

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ISO 9001 CERTIFIED

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## 102-32G1

### FLEXIBLE HIGH TEMPERATURE ELECTRICALLY CONDUCTIVE ADHESIVE

**DESCRIPTION:** 102-32G1 is a flexible electrically conductive silicone adhesive. 102-32G1 features the highest degree of thermal and mechanical reliability over any other conductive adhesive technology and provides no failures during thermal cycling, heat aging, shocking or vibration due to the reliability from the elasticity of the product. Some applications for 102-32G1 include, but are not limited to, elastomeric conductive bridging and bonding, conductive bonding of low surface energy materials, conductive via filling and electrical attachments for stress sensitive devices. 102-32G1 is one of the few conductive adhesives that can bond to silicone substrates and surfaces. In addition, it can be bonded to some types of Teflon® surfaces. 102-32G1 features better conductivity than 102-32 when cured at lower temperatures.

#### **TYPICAL CURED PROPERTIES:**

Viscosity (#CP-51, 10/s, cps)	25,000 – 35,000
Thixotropic Index (1/10)	3
Filler	Silver
Percent Silver (cured)	> 84
Percent Solids	84 – 89
Crease Resistance	Excellent
Volume Resistance (Ω-cm, 80°C cure, MAX)	0.0001
Volume Resistance (Ω-cm, 140°C cure, MAX)	0.00008
Thermal Conductivity (W/m-K)	12.7
Solderable	After plating
Useful Temperature Range (°C)	-70 to +260
Thermal Stability (°C)	Good to +325

**SUGGESTED HANDLING & CURING:** 102-32G1 is ready to use as supplied. Further thinning may be accomplished by adding small amounts of toluene, xylene, or 127-05. Prior to using, be certain to resuspend silver. Apply thin film of adhesive to both surfaces to be bonded. For best mechanical properties 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. Best properties, for most applications, result when cured for 5 to 10 minutes at 160°C. See typical cured properties table for lower temperature cure profiles. Add 0.25 – 0.5% by weight B-507 catalyst when maximum strength and chemical resistance is needed. Good properties are obtained on a variety of substrates by curing at temperatures ranging from 25°C to 200°C. End user is advised to experimentally determine temperature and time best suited for individual applications.

**STORAGE:** Shelf life: 3 months at 25°C; or 6 months at -10°C; or 12 months at -40°C.

NOTE: Use catalyzed product within 24 - 36 hours.

**\*102-32G1 packaged in syringes must be kept frozen at -40°C**

**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.

Syringe Handling Guidelines: <https://server.creativematerials.com/resources/SyringeHandlingGuidelines.pdf>

*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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