

Product
Bulletin**E10-101**

Pure silver filled electrically conductive epoxy. Maximum continuity of conductivity, high adhesion; can be thinned as a coating for FRI and EMI shielding.

GENERAL DESCRIPTION

E10-101 is an epoxy adhesive and coating formulation based on pure silver. This versatile silver formulation offers the maximum continuity of conductivity with an electrical resistivity value of less than 1×10^{-4} ohm·cm. E10-101 is also characterized by a wide operating temperature range from -50 to $+170^{\circ}\text{C}$.

E10-101 is recommended for electronic bonding and sealing applications that require both fine electrical and mechanical properties.

E10-101 cures at room temperature or can be accelerated with mild heat to form a tenacious bond between similar and dissimilar substrates including: aluminum, copper, magnesium, steel, bronze, nickel, kovar, ceramic, glass, phenolic and G-10 epoxy glass boards.

E10-101 has been used extensively in such diversified applications as microwave EMI & RFI shielding, in the assembly or repair of printed circuit boards, wave guides, electronic modules, flat cable, high frequency shields, connections, circuitry and as a cold solder for high-sensitive components where hot-soldering is impractical.

This unique formulation offers ease in handling due to its creamy consistency.

APPLICATION

1. Clean and remove any dirt and grease from surfaces to be bonded.
2. Mix thoroughly, by weight, 5 parts E10-101 catalyst to 100 parts E10-101 silver resin.
3. Apply and cure overnight at room temperature or cure 2-3 hours at 80°C .

Cure Schedule: 24 hrs. @ Room Temp
45 mins @ 50°C
15 mins @ 100°C

SPECIFICATIONSHANDLING CHARACTERISTICS

Catalyst Number: Catalyst 101
Mix Ratio, Catalyst to Resin, by Weight: 1:20
Workable Pot Life, 100 g @ 25°C : 1 hr.
Mixed Viscosity @ 25°C cps: paste
Recommended Cure: 8 hrs. @ room temp.
Color: silver

PHYSICAL CHARACTERISTICS

Shrinkage Linear, in / in: 0.003
Hardness, Shore D: 85
Specific Gravity, $25^{\circ}\text{C} / 25^{\circ}\text{C}$: 2.80
Tensile Strength, psi: 9,500
Compressive Strength, psi: 14,000

THERMAL CHARACTERISTICS

Thermal Conductivity, btu / hr / $\text{ft}^2 / ^{\circ}\text{F} / \text{in}$: 100
Thermal Expansion Coefficient,
($\text{cm} / \text{cm} / ^{\circ}\text{C} \cdot 10^{-5}$): 1.5
Heat Distortion, $^{\circ}\text{C}$: 95
Operating Temperature Range, $^{\circ}\text{C}$: -50 to $+170$

ELECTRICAL CHARACTERISTICS

Volume Resistivity, ohm · cm: < 0.0001

STORAGE AND HANDLING

Since settling may occur in storage, remix each container prior to use. Refrigeration storage is recommended to minimize filler settling and to maintain viscosity and electrical conductivity. If refrigeration storage is used, to avoid condensation, allow to stabilize to room temperature before opening and removing material. OSHA Form 20 Material Safety Data Bulletins are available on request.

PACKAGING

E10-101 is available in:

- 1- Burst Pouches (2.5 grams, 5grams, 10grams)

	<p>Roll pouch to force liquid toward burst seal.</p>
	<p>Squeeze and apply pressure to burst through seal</p>
	<p>Mix thoroughly on edge of desk until well mixed</p>
	<p>Cut corner and dispense.</p>

PACKAGING

- 3- Two Chamber Pouches Separated by Plastic Clamp (2.5 grams, 5 grams, 10 grams)

	<p>Hold each end of pouch and pull firmly to remove plastic divider</p>
	<p>Mix thoroughly on table top or any 90° surface until well mixed.</p>
	<p>Cut corner and dispense. Plastic divider can also be used as an applicator</p>

- 2- Jars Kits: (0.5Lb, 1.0Lb, 2.0 Lb)

Pre-measured part A and B



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