

Number of Components:	Two	Minimum Bond Line Cure Schedule*:	
Mix Ratio By Weight:	3:1	175°C	15 Minutes
Specific Gravity:		150°C	1 Hour
Part A	2.35		
Part B	4.58		
Pot Life:	5 Days		
Shelf Life:	One year at room temperature		

Note: Container(s) should be kept closed when not in use. For filled systems, mix contents of each container (A & B) thoroughly before mixing the two together. *Please see Applications Note available on our website.

Product Description:

EPO-TEK[®] E2101 is a two component, thixotropic, electrically conductive adhesive. It may be used for circuit assembly and semiconductor applications.

EPO-TEK[®] E2101 Advantages & Application Notes:

- Thixotropic paste allows for application by stencil or screen printing. SMD caps and resistors as small as the 0402 format have been mounted to PCB without silver bridging between the 2 electrodes.
- Capable of adhering to PCB metals like Au, Cu, OSP / Cu, Ag, Ag-Pd.
- Used for making electrical connections to PZT electrodes in ink-jetting or medical / ultrasound applications
- Suitable for low temperature flip chip packaging. "Bumps" of E2101 may be used instead of Sn/Pb solder balls.
- Suited for high speed automated syringe dispensing techniques.
- Low flow, low resin bleedout on gold surfaces.
- Passes NASA low outgassing standard ASTM E595 with proper cure - <http://outgassing.nasa.gov/>
- JEDEC Level III and II semiconductor packaging material

Typical Properties: (To be used as a guide only, not as a specification. Data below is not guaranteed. Different batches, conditions and applications yield differing results; Cure condition: 150°C/1 hour; * denotes test on lot acceptance basis)

Physical Properties:	
*Color: Part A: Silver Part B: Silver	Weight Loss:
*Consistency: Smooth thixotropic paste	@ 200°C: 0.09%
*Viscosity (@ 20 RPM/23°C): 15,000 – 18,000 cPs	@ 250°C: 0.16%
Thixotropic Index: 3.9	@ 300°C: 0.36%
*Glass Transition Temp.(Tg): ≥ 90°C (Dynamic Cure 20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min)	Operating Temp:
Coefficient of Thermal Expansion (CTE):	Continuous: - 55°C to 200°C
Below Tg: 56 x 10 ⁻⁶ in/in/°C	Intermittent: - 55°C to 300°C
Above Tg: 131 x 10 ⁻⁶ in/in/°C	Storage Modulus @ 23°C: 492,000 psi
Shore D Hardness: 68	Ions: Cl ⁻ 27 ppm
Lap Shear Strength @ 23°C: 952 psi	Na ⁺ 10 ppm
Die Shear Strength @ 23°C: ≥ 5 Kg / 1,700 psi	NH ₄ ⁺ 80 ppm
Degradation Temp. (TGA): 455°C	K ⁺ 1 ppm
	*Particle Size: ≤ 20 Microns
Electrical Properties:	
*Volume Resistivity @ 23°C: ≤ 0.0005 Ohm-cm	
Thermal Properties:	
Thermal Conductivity: 2.5 W/mK	

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