

**Date:** September 2017  
**Rev:** IV  
**No. of Components:** Single  
**Mix Ratio by Weight:** N/A  
**Specific Gravity:** 2.76  
**Pot Life:** 1 Day  
**Shelf Life- Bulk:** One year at -40°C

**Recommended Cure: 150°C / 1 Hour**

Minimum Alternative Cure(s):  
*May not achieve performance properties listed below*  
 170°C / 45 Seconds  
 160°C / 5 Minutes  
 150°C / 15 Minutes

**NOTES:**

- Container(s) should be kept closed when not in use.
- Filled systems should be stirred thoroughly before mixing and prior to use.
- Bring to room temperature before opening container.
- Performance properties (rheology, conductivity, others) of the product may vary from those stated on the data sheet when bi-pak/syringe packaging or post-processing of any kind is performed. Epoxy's warranties shall not apply to any products that have been reprocessed or repackaged from Epoxy's delivered status/container into any other containers of any kind, including but not limited to syringes, bi-paks, cartridges, pouches, tubes, capsules, films or other packages.

**Product Description:** EPO-TEK® E3001 is a one component, silver-filled, electrically conductive epoxy designed for semiconductor die attach applications using a snap-cure profile.

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

PHYSICAL PROPERTIES:			
* Color (before cure):	Silver		
* Consistency:	Smooth thixotropic paste		
* Viscosity (23°C) @ 100 rpm:	2,000 - 4,100 cPs		
Thixotropic Index:	2.7		
* Glass Transition Temp:	≥ 90 °C (Dynamic Cure: 20-200°C/ISO 25 Min; Ramp -10-200°C @20°C/Min)		
Coefficient of Thermal Expansion (CTE):			
	Below Tg:	50	x 10 <sup>-6</sup> in/in°C
	Above Tg:	124	x 10 <sup>-6</sup> in/in°C
Shore D Hardness:	78		
Lap Shear @ 23°C:	1,391	psi	
Die Shear @ 23°C:	≥ 5	Kg	1,778 psi
Degradation Temp:	428	°C	
Weight Loss:			
	@ 200°C:	0.04	%
	@ 300°C:	0.22	%
Suggested Operating Temperature:	< 300 °C (Intermittent)		
Storage Modulus:	374,999	psi	
* Particle Size:	≤ 45	microns	

ELECTRICAL AND THERMAL PROPERTIES:			
Thermal Conductivity:	0.9	W/mK	
* Volume Resistivity @ 23°C:	≤ 0.0005	Ohm-cm	
Volume Resistivity @ 23°C (200°C/2 Minutes):	0.0007	Ohm-cm	
Dielectric Constant (1KHz):	N/A		
Dissipation Factor (1KHz):	N/A		

**Epoxyes and Adhesives for Demanding Applications™**

**This information is based on data and tests believed to be accurate. Epoxy Technology, Inc. makes no warranties (expressed or implied) as to its accuracy and assumes no liability in connection with any use of this product.**

**EPOXY TECHNOLOGY, INC.**

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