

## Product Information Sheet

**MATERIAL ID:**

**EPO-TEK® 320-LV**

**Date:** 10/2006

**Per:**

**Rev:** I

**Material Description:**

A two component, optically opaque epoxy adhesive designed for semiconductor and PCB applications in optoelectronic instrumentation and assemblies. A lower viscosity version of EPO-TEK® 320 that can be poured, potted or cast into shape.

**Number of Components:**

Two

**Mix Ratio by weight:**

10:2

**Cure Schedule (minimum)**

65°C/2 Hours - 23°C/24 Hours

**Specific Gravity:**

--- Part A: 1.20 Part B: 0.87

**Pot Life:**

1 Hour

**Shelf Life:**

One year at room temperature

*NOTE:* Container(s) should be kept closed when not in use. Filled systems should be stirred thoroughly before mixing and prior to use - **TOTAL MASS SHOULD NOT EXCEED 25 GRAMS** -

**MATERIAL CHARACTERISTICS:** *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: varies as required*  
\* denotes test on lot acceptance basis

<b>PHYSICAL PROPERTIES:</b>			
<b>*Color (before cure):</b>	Part A: Black Part B: Clear/Colorless	<b>Die Shear @ 23°C:</b>	≥ 15 Kg / 5,100 psi
<b>*Consistency:</b>	Smooth pourable liquid	<b>Degradation Temp:</b>	397 °C
<b>*Viscosity (23°C):</b>		<b>Weight Loss:</b>	
@ 100 rpm	350 - 650 cPs	@ 200°C:	0.26 %
<b>Thixotropic Index:</b>	N/A	@ 250°C:	0.52 %
<b>*Glass Transition Temp:</b>	≥ 55 °C (Dynamic Cure 20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min)	@ 300°C:	1.02 %
<b>Coefficient of Thermal Expansion (CTE):</b>		<b>Operating Temp:</b>	
Below Tg:	48 x 10 <sup>-6</sup> in/in/°C	Continuous:	- 55°C to + 200°C
Above Tg:	170 x 10 <sup>-6</sup> in/in/°C	Intermittent:	- 55°C to + 300°C
<b>Shore D Hardness:</b>	84	<b>Storage Modulus @ 23°C:</b>	266,293 psi
<b>Lap Shear @ 23°C:</b>	1,680 psi	<b>*Particle Size:</b>	≤ 20 microns
<b>ELECTRICAL AND THERMAL PROPERTIES:</b>			
<b>Thermal Conductivity:</b>	N/A W/mK	<b>Dielectric Constant (1KHz):</b>	11.35
<b>*Volume Resistivity @ 23°C:</b>	≥ 2 X 10 <sup>9</sup> Ohm-cm	<b>Dissipation Factor (1KHz):</b>	0.283
<b>OPTICAL PROPERTIES @ 23°C:</b>			
<b>Spectral Transmission:</b>	< 1 % @ 300-2500 nm	<b>Index of Refraction:</b>	N/A

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