

Product Information Sheet

MATERIAL ID:

EPO-TEK® 320-LV

Date: 10/2006

Per:

Rev: 1

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

| PHYSICAL PROPERTIES: | | | |
|--|---|--------------------------------|---------------------|
| *Color (before cure): | Part A: Black Part B: Clear/Colorless | Die Shear @ 23°C: | ≥ 15 Kg / 5,100 psi |
| *Consistency: | Smooth pourable liquid | Degradation Temp: | 397 °C |
| *Viscosity (23°C): | | Weight Loss: | |
| @ 100 rpm | 350 - 650 cPs | @ 200°C: | 0.26 % |
| Thixotropic Index: | N/A | @ 250°C: | 0.52 % |
| *Glass Transition Temp: | ≥ 55 °C (Dynamic Cure 20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min) | @ 300°C: | 1.02 % |
| Coefficient of Thermal Expansion (CTE): | | Operating Temp: | |
| Below Tg: | 48 x 10 ⁻⁶ in/in°C | Continuous: | - 55°C to + 200°C |
| Above Tg: | 170 x 10 ⁻⁶ in/in°C | Intermittent: | - 55°C to + 300°C |
| Shore D Hardness: | 84 | Storage Modulus @ 23°C: | 266,293 psi |
| Lap Shear @ 23°C: | 1,680 psi | *Particle Size: | ≤ 20 microns |

| ELECTRICAL AND THERMAL PROPERTIES: | | | |
|---|------------------------------|------------------------------------|-------|
| Thermal Conductivity: | N/A W/mK | Dielectric Constant (1KHz): | 11.35 |
| *Volume Resistivity @ 23°C: | ≥ 2 X 10 ⁹ Ohm-cm | Dissipation Factor (1KHz): | 0.283 |

| OPTICAL PROPERTIES @ 23°C: | | | |
|-----------------------------------|---------------------|-----------------------------|-----|
| Spectral Transmission: | < 1 % @ 300-2500 nm | Index of Refraction: | N/A |

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