

Product Information Sheet

MATERIAL ID:

EPO-TEK® EH100

Date: 11/2005

Per:

Rev: IV

Material Description:

A two component, silver-filled epoxy designed for ITO interconnects in LCD packaging and assembly. It is a 3 mil glass-beaded version of EPO-TEK® E4110. It may also be used for semiconductor die-attach applications requiring a 3 mil stand-off.

Number of Components:

Two

Mix Ratio by weight:

10:1

Cure Schedule (minimum)

150°C/15 Minutes - 100°C/1 Hour - 80°C/3 Hours - 60°C/6 Hours - 23°C/3 Days

A heat cure is recommended to achieve optimum properties.

Specific Gravity:

--- Part A: 3.28 Part B: 0.97

Pot Life:

4 Hours

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

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: 150°C/1 Hour*
* denotes test on lot acceptance basis

PHYSICAL PROPERTIES:

<p>*Color (before cure): Part A: Silver Part B: Clear/Colorless</p> <p>*Consistency: Smooth flowing paste</p> <p>*Viscosity (23°C) without glass beads: @ 100 rpm 800 - 1,600 cPs</p> <p>Thixotropic Index: N/A</p> <p>*Glass Transition Temp: ≥ 40 °C (Dynamic Cure 20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min)</p> <p>Coefficient of Thermal Expansion (CTE): Below Tg: 32 x 10⁻⁶ in/in°C Above Tg: 144 x 10⁻⁶ in/in°C</p> <p>Shore D Hardness: 60</p> <p>Lap Shear @ 23°C: 1,612 psi</p> <p>Die Shear @ 23°C: ≥ 5 Kg / 1,700 psi</p> <p>Degradation Temp: 380 °C</p>	<p>Weight Loss:</p> <p>@ 200°C: 0.70 %</p> <p>@ 250°C:</p> <p>@ 300°C:</p> <p>Operating Temp: Continuous: - 55°C to + 150°C Intermittent: - 55°C to + 250°C</p> <p>Storage Modulus @ 23°C: 472,439 psi</p> <p>Ion Content: Cl⁻: 151 ppm NH₄⁺: 23 ppm Na⁺: 23 ppm K⁺: 31 ppm</p> <p>*Particle Size: ≤ 80 microns</p>
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ELECTRICAL AND THERMAL PROPERTIES:

<p>Thermal Conductivity: 1.37 W/mK</p> <p>*Volume Resistivity @ 23°C: ≤ 0.0005 Ohm-cm</p> <p>Volume Resistivity @ 23°C (23°C/3 Day cure) ≤ 0.007 Ohm-cm</p>	<p>Dielectric Constant (1KHz): N/A</p> <p>Dissipation Factor (1KHz): N/A</p>
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OPTICAL PROPERTIES @ 23°C:

<p>Spectral Transmission: N/A</p>	<p>Index of Refraction: N/A</p>
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