

Product Information Sheet

MATERIAL ID:

EPO-TEK® E3084

Date: 08/2007

Per:

Rev: III

Material Description:

A single component, silver-filled, electrically and thermally conductive adhesive designed for semiconductor die-attach and hybrid microelectronics packaging applications found in military, medical, industrial and aerospace industries.

Number of Components:

Single

Mix Ratio by weight:

N/A

Cure Schedule (minimum)

200°C/1 Hour - Post Cure: 250°C/1 Hour

Specific Gravity:

3.5 --- Part A: Part B:

Pot Life:

28 Days

Shelf Life:

Six months refrigerated

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: varies as required*
 * denotes test on lot acceptance basis

PHYSICAL PROPERTIES:			
*Color (before cure):	Silver	Weight Loss:	
*Consistency:	Smooth paste	@ 200°C:	0.13 %
*Viscosity (23°C):		@ 250°C:	0.20 %
@ 10 rpm	19,000 - 30,000 cPs	@ 300°C:	0.34 %
Thixotropic Index:	3.9	Operating Temp:	
*Glass Transition Temp:	≥ 100 °C (Dynamic Cure 20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min)	Continuous:	- 55°C to + 200°C
Coefficient of Thermal Expansion (CTE):		Intermittent:	- 55°C to + 300°C
Below Tg:	38 x 10 ⁻⁶ in/in/°C	Storage Modulus @ 23°C:	691,723 psi
Above Tg:	235 x 10 ⁻⁶ in/in/°C	Ion Content:	
Shore D Hardness:	78	Cl ⁻ :	161 ppm
Lap Shear @ 23°C:	632 psi	NH ₄ ⁺ :	3 ppm
Die Shear @ 23°C:	≥ 5 Kg / 1,799 psi	Na ⁺ :	35 ppm
Degradation Temp:	369 °C	K ⁺ :	9 ppm
		*Particle Size:	≤ 20 microns

ELECTRICAL AND THERMAL PROPERTIES:			
Thermal Conductivity:	2.23 W/mK	Dielectric Constant (1KHz):	N/A
*Volume Resistivity @ 23°C:	≤ 0.0005 Ohm-cm	Dissipation Factor (1KHz):	N/A

OPTICAL PROPERTIES @ 23°C:			
Spectral Transmission:	N/A	Index of Refraction:	N/A

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