

Product Information Sheet

MATERIAL ID:

EPO-TEK® H61ND

Date: 02/2007

Per:

Rev: II

Material Description:

A single component, high Tg, thermally conductive, electrically insulating epoxy adhesive for semiconductor, microelectronic, and opto-electronic packaging applications.

Number of Components:

Single

Mix Ratio by weight:

N/A

Cure Schedule (minimum)

150°C/30 Minutes - 120°C/60 Minutes

Specific Gravity:

2.27 --- Part A: Part B:

Pot Life:

20 Days

Shelf Life:

6 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: 150°C/1 hour*
* denotes test on lot acceptance basis

PHYSICAL PROPERTIES:			
*Color (before cure):	Light Grey	Weight Loss:	
*Consistency:	Smooth paste	@ 200°C:	0.08 %
*Viscosity (23°C):		@ 250°C:	0.14 %
@ 5 rpm	30,000 - 50,000 cPs	@ 300°C:	0.24 %
Thixotropic Index:	1.3	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:	22 x 10 ⁻⁶ in/in°C	Storage Modulus @ 23°C:	892,663 psi
Above Tg:	86 x 10 ⁻⁶ in/in°C	Ion Content:	
Shore D Hardness:	83	Cl ⁻ :	90 ppm
Lap Shear @ 23°C:	506 psi	NH ₄ ⁺ :	392 ppm
Die Shear @ 23°C:	≥ 20 Kg / 6,800 psi	Na ⁺ :	142 ppm
Degradation Temp:	468 °C	K ⁺ :	17 ppm
		*Particle Size:	≤ 50 microns

ELECTRICAL AND THERMAL PROPERTIES:			
Thermal Conductivity:	0.80 W/mK	Dielectric Constant (1KHz):	4.23
Volume Resistivity @ 23°C:	≥ 3 x 10 ¹³ Ohm-cm	Dissipation Factor (1KHz):	0.003

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

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