

Product Information Sheet

MATERIAL ID:

EPO-TEK® H63

Date: 03/2007

Per:

Rev: IV

Material Description:

A single component, electrically insulating, thermally conductive epoxy adhesive for semiconductor, hybrid packaging and electronic circuit assembly applications. It is a higher viscosity alternative to EPO-TEK® H62.

Number of Components:

Single

Mix Ratio by weight:

N/A

Cure Schedule (minimum)

150°C/30 Minutes - 120°C/60 Minutes

Specific Gravity:

1.79 --- Part A: Part B:

Pot Life:

28 Days

Shelf Life:

One year 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): | Black | Die Shear @ 23°C: | ≥ 10 Kg / 3,400 psi |
| *Consistency: | Smooth thixotropic paste | Degradation Temp: | 418 °C |
| *Viscosity (23°C): | | Weight Loss: | |
| @ 10 rpm | 25,000 - 35,000 cPs | @ 200°C: | 0.05 % |
| Thixotropic Index: | 1.13 | @ 250°C: | 0.19 % |
| *Glass Transition Temp: | ≥ 120 °C (Dynamic Cure 20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min) | @ 300°C: | 0.66 % |
| Coefficient of Thermal Expansion (CTE): | | Operating Temp: | |
| Below Tg: | 27 x 10 ⁻⁶ in/in/°C | Continuous: | - 55°C to + 250°C |
| Above Tg: | 125 x 10 ⁻⁶ in/in/°C | Intermittent: | - 55°C to + 350°C |
| Shore D Hardness: | 91 | Storage Modulus @ 23°C: | 466,233 psi |
| Lap Shear @ 23°C: | 1,102 psi | *Particle Size: | ≤ 50 microns |

ELECTRICAL AND THERMAL PROPERTIES:

| | | | |
|-----------------------------------|-------------------------------|------------------------------------|-------|
| Thermal Conductivity: | 0.56 W/mK | Dielectric Constant (1KHz): | 4.75 |
| Volume Resistivity @ 23°C: | ≥ 3 x 10 ¹³ Ohm-cm | Dissipation Factor (1KHz): | 0.021 |

OPTICAL PROPERTIES @ 23°C:

| | | | |
|-------------------------------|-----|-----------------------------|-----|
| Spectral Transmission: | N/A | Index of Refraction: | N/A |
|-------------------------------|-----|-----------------------------|-----|

EPOXY TECHNOLOGY, INC.
 14 FORTUNE DRIVE, BILLERICA, MA 01821 (978) 667-3805, FAX (978) 663-9782
 WEB SITE: www.epotek.com