

EPO-TEK[®] **H62** Technical Data Sheet

For Reference Only

Thermally Conductive Epoxy

Number of Components: Single Minimum Bond Line Cure Schedule*:

Mix Ratio By Weight: N/A 150°C 30 Minutes
Specific Gravity: 1.78 120°C 1 Hour

Part A Part B

Pot Life: 15 Days

Shelf Life: 1 year refrigerated

Note: Container(s) should be kept closed when not in use. For filled systems, mix contents of container thoroughly.

*Please see Applications Note available on our website.

Product Description:

EPO-TEK® H62 is a single component, electrically insulating, and thermally conductive epoxy adhesive. It may be used for heat-sinking semiconductor, hybrids, or electronic circuits.

EPO-TEK® H62 Advantages & Application Notes:

- Black and opaque appearance; it can block out light in opto-electronic devices.
- Semiconductor encapsulant for COB packaged die. It may be used as a glob top DAM around the chip.
- SMD "staking" material or Surface Mount Adhesive (SMA). The SMA may be used for double-sided PCB bonding of components; staking caps and resistors to ceramic or hybrid circuits. High viscosity adhesive paste has enough wet "green strength" to hold SMD's to the PCB prior to cure.
- Alternatives are available in different viscosity ranges and colors; contact <u>techserv@epotek.com</u> for your best recommendation.
- Excellent adhesion to ferrous and non-ferrous metals, glass, ceramics, PCB, and most plastics.
- Thixotropic paste appearance makes it capable of syringe dispensing techniques, stencil or screen printing, or hand applications by brush or spatula.

<u>Typical Properties</u>: (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: Black, Opaque Weight Loss:
*Consistency: Smooth thixotropic paste @ 200°C: 0.31%

Thixotropic Index: 1.89 @ 300°C: 0.62% *Glass Transition Temp.(Tg): ≥ 110°C (Dynamic Cure Operating Temp:

20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min) Continuous: - 55°C to 275°C

Coefficient of Thermal Expansion (CTE): Intermittent: -55°C to 375°C

Below Ta: 48 x 10° in/in/°C

Storage Modulus @ 23°C: 656 630 psi

 Below Tg:
 48 x 10⁻⁶ in/in/°C
 Storage Modulus @ 23°C: 656,630 psi

 Above Tg:
 119 x 10⁻⁶ in/in/°C
 lons: Cl 55 ppm

 Shore D Hardness:
 80
 Na⁺ 136 ppm

 Lap Shear Strength @ 23°C:
 600 psi
 NH₄⁺ 96 ppm

 Die Shear Strength @ 23°C:
 ≥ 15 Kg / 5,100 psi
 K⁺ 28 ppm

Degradation Temp. (TGA): 436°C *Particle Size: ≤ 50 Microns
Optical Properties:

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

Electrical & Thermal Properties:

Thermal Conductivity: 0.50 W/mK Volume Resistivity @ 23°C: ≥ 2 x 10¹³ Ohm-cm

Dielectric Constant (1KHz): 4.65 Dissipation Factor (1KHz): 0.011

EPOXY TECHNOLOGY, INC.

Epoxies and Adhesives for Demanding Applications™

This information is based on data and tests believed to be accurate. Epoxy Technology, Inc. makes no warranties (expressed or implied) as to its accuracy and assumes no liability in connection with any use of this product.