

EPO-TEK® H62

Technical Data Sheet
For Reference Only
Thermally Conductive Epoxy

Date: February 2022 Recommended Cure: 150°C / 1 Hour

Rev: X
No. of Components: Single
Mix Ratio by Weight: N/A
Specific Gravity: 1.78
Pot Life: 15 Days

Shelf Life- Bulk: Six months at -40°C Shelf Life- Syringe: Six months at -40°C

Minimum Alternative Cure(s):

May not achieve performance properties listed below

150°C / 30 Minutes 120°C / 1 Hour

NOTES:

• Container(s) should be kept closed when not in use.

- Filled systems should be stirred thoroughly before mixing and prior to use.
- Performance properties (rheology, conductivity, others) of the product may vary from those stated on the data sheet when bi-pak/syringe packaging or post-processing of any kind is performed. Epoxy's warranties shall not apply to any products that have been reprocessed or repackaged from Epoxy's delivered status/container into any other containers of any kind, including but not limited to syringes, bi-paks, cartridges, pouches, tubes, capsules, films or other packages.
- Failure to ship frozen may result in viscosity growth beyond the range of values herein; customer assumes all risk.

<u>Product Description:</u> 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.

<u>Typical Properties:</u> Cure condition: 150°C / 1 Hour Different batches, conditions & applications yield differing results.

Data below is not guaranteed. To be used as a guide only, not as a specification. * denotes test on lot acceptance basis

PHYSICAL PROPERTIES:		
* Color (before cure):	Black, opaque	
* Consistency:	Smooth thixotropic	paste
* Viscosity (23°C) @ 10 rpm:	17,000-27,000	
Thixotropic Index:	1.9	
* Glass Transition Temp:	≥ 110	°C (Dynamic Cure: 20-250°C/ISO 25 Min; Ramp -10-200°C @20°C/Min)
Coefficient of Thermal Expansion (CTE):		
Below Tg:	48	x 10 ⁻⁶ in/in°C
Above Tg:	119	x 10 ⁻⁶ in/in°C
Shore D Hardness:	80	
Lap Shear @ 23°C:	600	psi
Die Shear @ 23°C:	≥ 15	Kg 5,334 psi
Degradation Temp:	436	°C
Weight Loss:		
@ 200°C:	0.31	%
@ 250°C:	0.42	%
@ 300°C:	0.62	%
Suggested Operating Temperature:	< 375	°C (Intermittent)
Storage Modulus:	656,630	psi
Ion Content:	Cl ⁻ : 55 ppm	Na ⁺ : 136 ppm
	NH ₄ ⁺ : 96 ppm	
* Particle Size:	≤ 50	microns

ELECTRICAL AND THERMAL PROPERTIES:		
Thermal Conductivity:	0.5	W/mK
Volume Resistivity @ 23°C:	$\geq 2 \times 10^{13}$	Ohm-cm
Dielectric Constant (1KHz):	4.65	
Dissipation Factor (1KHz):	0.011	

OPTICAL PROPERTIES @ 23°C:		
Spectral Transmission:	< 1% @ 300-2500	nm
Refractive Index:	N/A	

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.

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EPO-TEK® H62 Advantages & Suggested 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 techserv@epotek.com 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