

EPO-TEK® H73

Technical Data Sheet
For Reference Only
Thermally Conductive Epoxy

Date: February 2021 Recommended Cure: 150°C / 1 Hour

Part B: 1.02

Rev: X
No. of Components: Two
Mix Ratio by Weight: 100 : 4

Specific Gravity: Part A: 2.03

Pot Life: 2.5 Hours

Shelf Life- Bulk: One year at room temperature

Minimum Alternative Cure(s):

May not achieve performance properties listed below

150°C / 10 Minutes 100°C / 20 Minutes 80°C / 2 Hours

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.
- Syringe packaging will impact initial viscosity and effective pot life, potentially beyond stated parameters.

<u>Product Description:</u> EPO-TEK® H73 is a two component, thermally conductive, electrically insulating epoxy. It is a higher viscosity alternative to EPO-TEK® H74.

<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

DUVELCAL DEODEDTICS.		
PHYSICAL PROPERTIES:		
* Color (before cure):	art A: Light grey	Part B: Amber
* Consistency:	hick paste	
* Viscosity (23°C) @ 2.5 rpm:	80,000-100,000	cPs
	Not Measurable	
* Glass Transition Temp:	≥ 100	°C (Dynamic Cure: 20-200°C/ISO 25 Min; Ramp -10-200°C @20°C/Min)
Coefficient of Thermal Expansion (CTE):		
Below Tg:	35	x 10 ⁻⁶ in/in°C
Above Tg:	98	x 10 ⁻⁶ in/in°C
Shore D Hardness:	91	
Lap Shear @ 23°C:	1,952	psi
Die Shear @ 23°C:	≥ 10	Kg 3,556 psi
Degradation Temp:	428	°Č
Weight Loss:		
@ 200°C:	0.13	%
@ 250°C:	0.21	%
@ 300°C:	0.47	%
Suggested Operating Temperature:	< 350	°C (Intermittent)
Storage Modulus:	875,539	psi
* Particle Size:	≤ 50	microns

ELECTRICAL AND THERMAL PROPERTIES:		
Thermal Conductivity:	0.8	W/mK
Volume Resistivity @ 23°C:	$\geq 3 \times 10^{13}$	Ohm-cm
Dielectric Constant (1KHz):	5.17	
Dissipation Factor (1KHz):	0.008	

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.



EPO-TEK® H73

Technical Data Sheet
For Reference Only
Thermally Conductive Epoxy

EPO-TEK® H73 Advantages & Suggested Application Notes:

- Thixotropic paste allows for good handling characteristics it can be dispensed, screen printed or manually applied by toothpick or spatula.
- Outstanding high temperature properties and excellent solvent, chemical and moisture resistance.
- Reasonable working life with fast curing at relatively low temperatures.
- Capable of providing near-hermetic seal.
- NASA approved, low outgassing epoxy http://outgassing.nasa.gov/
- Built in color indicator when product is cured. Color change may vary from tan to brown depending on cure conditions. Epoxy may turn dark red when subjected to wire bonding temperatures.