

Product Information Sheet

MATERIAL ID:
EPO-TEK® H61-110
Date: February 2023

Rev: VII

Material Description: A single component, high Tg, electrically insulating epoxy adhesive for semiconductor, microelectronic, and opto-electronic packaging applications. It is a liquid version of EPO-TEK® H61.

Number of Components: Single

Mix Ratio by Weight: N/A

Recommended Cure: 150°C/1 Hour

Specific Gravity: 1.22

Pot Life: 28 Days

Shelf Life: Six months at -40°C

Minimum Alternative Cure(s):
may not achieve performance properties below:

150°C / 30 Minutes

120°C / 60 Minutes

NOTE: Container(s) should be kept closed when not in use. Filled systems should be stirred thoroughly before mixing and prior to use.

Failure to ship frozen may result in viscosity growth beyond the range of values herein; customer assumes all risk.

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):	Clear/Light Yellow
* Consistency	Pourable liquid
* Viscosity (23°C): @ 100 rpm	2,000 - 4,000 cPs
Thixotropic Index:	N/A
* Glass Transition Temp:	≥ 110 °C (Dynamic Cure: 20—300°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min)
Coefficient of Thermal Expansion (CTE):	
Below Tg:	49 x 10 ⁻⁶ in/in°C
Above Tg:	150 x 10 ⁻⁶ in/in°C
Shore D Hardness:	83
Lap Shear @ 23°C:	758 psi
Die Shear @ 23°C:	≥ 15 Kg 5,100 psi
Degradation Temp:	420 °C
Weight Loss:	
@ 200°C	0.38 %
@ 250°C	0.64 %
@ 300°C	0.84 %
Operating Temp:	
Continuous:	- 55°C to 200°C
Intermittent:	- 55°C to 300°C
Storage Modulus:	290,029 psi
Ion Content:	
Cl:	12 ppm
NH ₄ ⁺ :	NA+: K+: 275 ppm 15 ppm
Particle Size:	N/A

ELECTRICAL AND THERMAL PROPERTIES:

Thermal Conductivity:	N/A
Volume Resistivity @ 23°C:	≥ 1 x 10 ¹³ Ohm-cm
Dielectric Constant (1KHz):	3.63
Dissipation Factor (1KHz):	0.007

OPTICAL PROPERTIES @ 23°C:

Spectral Transmission:	N/A
Index of Refraction:	1.5464 @ 589 nm

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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