Product Information Sheet

MATERIAL ID: **EPO-TEK® H61-110**

Date: May 2016
Rev: VI

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

PHYSCIAL 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—200°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**	**NA+:** 275 **ppm**
NH_4^+:			**K+:** 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**

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