

**Date:** September 2022  
**Rev:** VI  
**No. of Components:** Single  
**Mix Ratio by Weight:** N/A  
**Specific Gravity:** 2.00  
**Pot Life:** 28 Days  
**Shelf Life- Bulk:** One year at -40°C

**Recommended Cure: 150°C / 1 Hour**

Minimum Alternative Cure(s):  
*May not achieve performance properties listed below*  
 125°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.

**Product Description:** A single component, thermally conductive and electrically insulating epoxy designed for semiconductor die attach and bonding of SMDs for hybrid microelectronic packaging. It can be used for heat sinking, solder dam or dielectric layers in circuit assembly applications.

**Typical Properties:** 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):	White				
* Consistency:	Highly viscous paste				
* Viscosity (23°C) @ 1 rpm:	300,000-400,000	cPs			
Thixotropic Index:	N/A				
* Glass Transition Temp:	≥ 90	°C (Dynamic Cure: 20-300°C/ISO 25 Min; Ramp -10-200°C @20°C/Min)			
Coefficient of Thermal Expansion (CTE):					
	Below Tg:	16	x 10 <sup>-6</sup>	in/in°C	
	Above Tg:	68	x 10 <sup>-6</sup>	in/in°C	
Shore D Hardness:	84				
Lap Shear @ 23°C:	1,522	psi			
Die Shear @ 23°C:	≥ 10	Kg	3,556	psi	
Degradation Temp:	350	°C			
Weight Loss:					
	@ 200°C:	0.48	%		
	@ 250°C:	0.71	%		
	@ 300°C:	1.22	%		
Suggested Operating Temperature:	< 300	°C (Intermittent)			
Storage Modulus:	641,860	psi			
Ion Content:					
	Cl <sup>-</sup> :	177 ppm	Na <sup>+</sup> :	24 ppm	
	NH <sub>4</sub> <sup>+</sup> :	87 ppm	K <sup>+</sup> :	13 ppm	
* Particle Size:	≤ 20	microns			
ELECTRICAL AND THERMAL PROPERTIES:					
Thermal Conductivity:	0.5	W/mK			
Volume Resistivity @ 23°C:	≥ 6 x 10 <sup>9</sup>	Ohm-cm			
Dielectric Constant (1KHz):	4.90				
Dissipation Factor (1KHz):	0.004				

**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.**

EPOXY TECHNOLOGY, INC.

14 FORTUNE DRIVE, BILLERICA, MA 01821 (978) 667-3805, FAX (978) 663-9782

[www.epotek.com](http://www.epotek.com)