



# EPO-TEK® MED-320

Technical Data Sheet  
For Reference Only

Biocompatible/Opaque Epoxy  
ISO 10993-5 Tested/Compliant

**Date:** April 2018  
**Rev:** II  
**No. of Components:** Two  
**Mix Ratio by Weight:** 10 : 2  
**Specific Gravity:** Part A: 1.10      Part B: 0.87  
**Pot Life:** 1 Hour  
**Shelf Life- Bulk:** One year at room temperature

**Biocompatible Certified Cure: 65°C / 1 Hour**

*Alternative cures are possible, but no certification or testing has been done to support them.  
Contact techserv@epotek.com with questions.*

**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.
- **TOTAL MASS SHOULD NOT EXCEED 25 GRAMS**

**Product Description:** EPO-TEK® MED-320 is a black, biocompatible, thixotropic, low temperature curing, optically opaque epoxy for fiber optics, camera and photonic packaging, often used in bonding/potting/sealing of optics used in various medical imaging electronics.

**Typical Properties:** Cure condition: 65°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):	Part A: Black	Part B: Clear/Colorless	
* Consistency:	Slightly thixotropic paste		
* Viscosity (23°C) @ 100 rpm:	700 - 1,200	cPs	
Thixotropic Index:	5.8		
* Glass Transition Temp:	≥ 55 °C (Dynamic Cure: 20-200°C/ISO 25 Min; Ramp -10-200°C @20°C/Min)		
Coefficient of Thermal Expansion (CTE):			
Below Tg:	57	x 10 <sup>-6</sup> in/in°C	
Above Tg:	149	x 10 <sup>-6</sup> in/in°C	
Shore D Hardness:	80		
Lap Shear @ 23°C:	> 2,000	psi	
Die Shear @ 23°C:	≥ 15	Kg	5,334 psi
Degradation Temp:	339 °C		
Weight Loss:			
@ 200°C:	0.70	%	
@ 250°C:	1.27	%	
@ 300°C:	3.06	%	
Suggested Operating Temperature:	< 275 °C (Intermittent)		
Storage Modulus:	467,328	psi	
* Particle Size:	< 20 microns		

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

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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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