



# EPO-TEK® MED-301

Technical Data Sheet  
For Reference Only

Biocompatible/Spectrally Transparent Epoxy

ISO 10993 Tested/Fully Compliant

**Date:** February 2018  
**Rev:** II  
**No. of Components:** Two  
**Mix Ratio by Weight:** 20 : 5  
**Specific Gravity:** Part A: 1.15 Part B: 0.87  
**Pot Life:** 1-2 Hours  
**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-301 is a biocompatible, spectrally transparent, very low viscosity, room temperature curing epoxy. Additional characteristics are: self-leveling, short pot-life, and ease of application, either by dispensing or manual operation. EPO-TEK® MED 301 is used often in molding headers in pacemakers, cochlear implants and neurostimulator implants, as well as bonding in many other types of medical devices. When longer pot-life, lower stress and large-scale manufacturing is needed, EPO-TEK® MED 301-2 can usually be interchanged.

**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: Clear/Colorless	Part B: Clear/Colorless	
* Consistency:	Pourable liquid		
* Viscosity (23°C) @ 100 rpm:	100-200	cPs	
Thixotropic Index:	N/A		
* Glass Transition Temp:	≥ 65 °C (Dynamic Cure: 20-200°C/ISO 25 Min; Ramp -10-200°C @20°C/Min)		
Coefficient of Thermal Expansion (CTE):			
	Below Tg:	59	x 10 <sup>-6</sup> in/in°C
	Above Tg:	134	x 10 <sup>-6</sup> in/in°C
Shore D Hardness:	75		
Lap Shear @ 23°C:	> 2,000	psi	
Die Shear @ 23°C:	≥ 15	Kg	5,334 psi
Degradation Temp:	335 °C		
Weight Loss:			
	@ 200°C:	0.59	%
	@ 250°C:	0.83	%
	@ 300°C:	2.23	%
Suggested Operating Temperature:	< 285 °C (Intermittent)		
Storage Modulus:	420,622	psi	
* Particle Size:	N/A		

OPTICAL PROPERTIES:		
Spectral Transmission:	≥ 98% @ 360-1660	nm
	≥ 95% @ 1680-2060	nm
Refractive Index:	1.5193 @589 nm	

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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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