



EPO-TEK® MED-H20E
Technical Data Sheet
For Reference Only
Biocompatible/Electrically Conductive(ECA), Silver Epoxy
ISO 10993 Tested/Fully Compliant

Date: June 2018
Rev: III
No. of Components: Two
Mix Ratio by Weight: 1 : 1
Specific Gravity: Part A: 2.03 Part B: 3.07
Pot Life: 2.5 Days
Shelf Life- Bulk: One year at room temperature

Biocompatible Certified Cure: 150°C / 1.5 Hours

Alternative biocompatible cure schedules may be possible, but have not been certified. Contact med@epotek.com with any 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.

Product Description: EPO-TEK® MED-H20E is a biocompatible, silver-filled epoxy with electrical and high thermal conductivity. It is a well characterized and relied upon ECA, with over 40 years of successful design use. It is versatile in curing techniques; from box oven, to IR, to hot plate, to convection ovens and is used for circuit connections. Some typical applications are: pacemaker hybrid circuits, X-rays, ultrasound, and hearing aids using MEM or hybrid technology.

Typical Properties: Cure condition: 150°C / 1.5 Hours 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: Bright shiny silver	Part B: Slightly shiny silver	
* Consistency:	Smooth thixotropic paste		
* Viscosity (23°C) @ 100 rpm:	2,200-3,200	cPs	
Thixotropic Index:	4.0		
* Glass Transition Temp:	≥ 80 °C (Dynamic Cure: 20-200°C/ISO 25 Min; Ramp -10-200°C @20°C/Min)		
Coefficient of Thermal Expansion (CTE):			
	Below Tg:	58 x 10 ⁻⁶ in/in°C	
	Above Tg:	278 x 10 ⁻⁶ in/in°C	
Shore D Hardness:	70		
Lap Shear @ 23°C:	1,428	psi	
Die Shear @ 23°C:	≥ 10	Kg	3,556 psi
Degradation Temp:	432 °C		
Weight Loss:			
	@ 200°C:	0.66 %	
	@ 250°C:	1.10 %	
	@ 300°C:	1.64 %	
Suggested Operating Temperature:	< 375 °C (Intermittent)		
Storage Modulus:	1,046,490	psi	
* Particle Size:	≤ 45 microns		

ELECTRICAL AND THERMAL PROPERTIES:			
Thermal Conductivity:	2.56	W/mK	
* Volume Resistivity @ 23°C:	≤ 0.0004	Ohm-cm	

Epoxyes and Adhesives for Demanding Applications™

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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