



# EPO-TEK® MED-OG198-55

Technical Data Sheet  
For Reference Only

Biocompatible/ Shadow Curable Capable / UV Curing Epoxy  
ISO 10993-5 Tested/Compliant

Date: April 2022  
Rev: II  
No. of Components: Single  
Mix Ratio by Weight: N/A  
Specific Gravity: 1.13  
Pot Life: N/A  
Shelf Life- Bulk: Six months refrigerated  
Shelf Life- Syringe: Six months refrigerated

Biocompatible Certified Cure:  
UV 500mW/cm<sup>2</sup> 320-500nm/60 Seconds

Alternative biocompatible cure schedules may be possible,  
but have not been certified. Contact [med@epotek.com](mailto: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-OG198-55 is a single component, electrically and thermally insulating, translucent cationic/epoxy UV with high viscosity, high Tg, and high strength. It is capable of curing in shadowed regions using an oven post-cure. It is used in many surgical and dental tools and specialized medical equipment, especially with active lens alignment and lasers.

**Typical Properties:** Cure condition: UV 500mW/cm<sup>2</sup> 320-500nm/60 Seconds Data below is not guaranteed.  
Different batches, conditions & applications yield differing results. To be used as a guide only, not as a specification.  
\* denotes test on lot acceptance basis

PHYSICAL PROPERTIES:				
* Color (before cure):	Clear yellow			
* Consistency:	Smooth thixotropic paste			
* Viscosity (23°C) @ 100 rpm:	1,200-2,000	cPs		
Thixotropic Index:	5.4			
* Glass Transition Temp:	≥ 120	°C (Dynamic Cure: 20-200°C/ISO 25 Min; Ramp -10-200°C @20°C/Min)		
Coefficient of Thermal Expansion (CTE):				
	Below Tg:	54	x 10 <sup>-6</sup> in/in°C	
	Above Tg:	151	x 10 <sup>-6</sup> in/in°C	
Shore D Hardness:	81			
Die Shear @ 23°C:	≥ 20	Kg	7,112	psi
Degradation Temp:	373	°C		
Weight Loss:				
	@ 200°C:	0.66	%	
	@ 250°C:	1.10	%	
	@ 300°C:	2.40	%	
Suggested Operating Temperature:	< 300	°C (Intermittent)		
Storage Modulus:	334,074	psi		
* Particle Size:	≤ 20	microns		

OPTICAL PROPERTIES @ 23°C:			
Spectral Transmission:	≥ 90%	480-2500	nm
Refractive Index:	1.5027	@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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## Fiber and Electro-Optics

- Adhesive in fiber optic lasers whether diagnostic probes, mammography surgical tools, biopharmaceutical spectroscopy and photodynamic therapy (PDT)
- Potting epoxy for fiber image bundles in endoscopes

## Imaging Technologies

- Sealing glass plates, TCO's and films in digital radiography imaging
- Active alignment of optics for catheter delivered OCT, essentially opto-ultrasound
- Glob-Top for CMOS camera chip package

## Device and Diagnostics

- Sensor integration and subcomponents for respiratory, anesthesia, vapor and suction; gas and liquid flow monitoring
- SpO<sub>2</sub> patient monitoring; capnography, gas analyzers and flow meters
- Adhesive for surgical navigation, pressure and pH monitoring catheters

## Implantable Devices

- Adhesive for ophthalmic implants; plastic bonding in intraocular lens (IOL) Micro sensors for intraocular pressure
- Hearing aids and implants; acoustic circuits and structural assembly
- Adhesive for hybrid circuit assembly in pacemaker devices, ICDs and IPGs
- Neurovascular implants treating aneurysm, stroke, epilepsy and Parkinson's Disease
- Adhesive for fabrication of Continuous Glucose Monitoring circuits (CGMs)

## Surgical Tools

- High power laser optics for dental
- Dental device adhesive, lighting or hand instrument
- Adhesive for neurovascular surgical delivery systems and coils for treating aneurysms
- Fabrication of RF Ablation catheters
- Laser for peripheral artery disease (PAD); atherectomy technologies
- Microsurgical instruments for ophthalmology

EPO-TEK® MED-OG198-55 is a specialized cationic based UV curing adhesive with versatility in curing method/ lamps selected. It also is capable of curing in shadowed regions using an oven post-cure. It is a non-flowing version of MED-OG198-54.

## Biocompatibility Approvals

- EPO-TEK® MED-OG198-55 cured with UV for 1 minute has been tested and is ISO 10993-5 certified (Cytotoxicity testing by MEM Elution methodology).

## Sterilization Information

- MED-OG198-55 is Sterrad® 100NX resistant, anecdotally reported.
- Gamma radiation/ion beam will discolor MED-OG198-55 thus altering its transmission.  
See Technical Tip #29: Gamma Sterilization for Medical Devices and its Effect on Epoxies for more information:  
[http://www.epotek.com/site/files/Techtips/pdfs/techtips\\_29.pdf](http://www.epotek.com/site/files/Techtips/pdfs/techtips_29.pdf)
- MED-OG198-55 is generally regarded for resisting few ETO sterilization cycles.

## Packaging Availability

- EPO-TEK® MED-OG198-55 is available in specialty packaging, black colored syringes.

Comparative Cure Times with Various UV Lamps

