**Date:** November 2019  
**Rev:** I  
**No. of Components:** Single  
**Mix Ratio by Weight:** N/A  
**Specific Gravity:** 1.13  
**Pot Life:** N/A  
**Shelf Life- Bulk:** One year refrigerated

**Biocompatible Certified Cure:**  
UV 500mW/cm² 320-500nm/60 Seconds

**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/cm² 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.

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

**OPTICAL PROPERTIES @ 23°C:**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spectral Transmission</td>
<td>≥ 90% 480-2500 nm</td>
</tr>
<tr>
<td>Refractive Index</td>
<td>1.5027 @589 nm</td>
</tr>
</tbody>
</table>
Selected Applications for EPO-TEK® MED-OG198-55

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
- Glof-Top for CMOS camera chip package

Device and Diagnostics
- Sensor integration and subcomponents for respiratory, anesthesia, vapor and suction; gas and liquid flow monitoring
- SpO₂ 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.
- 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

- MED-OG116-31 MED-OG198-55
- Can be cured in ≤ 1 minute with appropriate lamps

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