

Date: August 2026
Rev: II
No. of Components: Two
Mix Ratio by Weight: 10 : 1
Specific Gravity: Bulk - Part A: 1.20, Part B: 1.02
Syringe: 1.18
Pot Life: Bulk: ≤3 Hours, Syringe: ≤2 Hours
Shelf Life- Bulk: One year at room temperature

Shelf Life- Syringe: Six months at -40°C
Biocompatible Certified
Cure: 120°C / 3 hr
 150°C / 90 min.

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

Product Description:

EPO-TEK® MED-353NDP is a biocompatible, high temperature, and high humidity resistance epoxy designed for medical applications, which span fiber optics and endoscopes, to implants, to diagnostic equipment, to imaging modalities, to surgical tooling. It has high adhesion to SST, titanium, ceramics, and most plastics. Also available in single component frozen syringe.

Typical Properties:

Cure condition: 120°C / 1 Hour

Different batches, conditions, and applications yield differing results.

Data contained herein is preliminary and subject to change without notice. To be used as guide only, not as a specification.

Notes:

- Container(s) should be kept closed when not in 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.
- If product crystallizes in storage, place container in warm oven until crystallization disappears. Please refer to Tech Tip #7 on website.
- TOTAL MASS MIXED SHOULD NOT EXCEED 25 GRAMS

Physical Properties

Details

* Color (before cure)	Part A: Clear, Part B: Amber
* Consistency	Pourable liquid
* Viscosity (23°C) @ 50 rpm	3,600 cPs
Thixotropic Index	N/A
* Glass Transition Temp	≥ 90°C (Dynamic Cure: 20-200°C/ISO 25 Min; Ramp -10-200°C @20°C/Min)
Coefficient of Thermal Expansion (CTE)	Below Tg: 52 x 10 ⁻⁶ in/in°C, Above Tg: 185 x 10 ⁻⁶ in/in°C
Shore D Hardness	85
Lap Shear @ 23°C	> 2000 psi
Die Shear @ 23°C	38 Kg; 32 Kg (after 7d @ 85°C / 85% RH); 15 Kg (after 2000h @ 85°C / 85% RH)
Degradation Temp	410°C
Weight Loss:	@ 200°C: 0.09%, @ 250°C: 0.28%, @ 300°C: 0.72%
Suggested Operating Temperature	< 350°C (Intermittent)
Storage Modulus:	2213 MPa @ 23°C
*Particle Size	N/A

Electrical & Thermal Properties	Details
Thermal Conductivity	N/A
Volume Resistivity @ 23°C	$\geq 1.8 \times 10^{13}$ Ohm-cm
Dielectric Constant (1KHz)	3.17
Dissipation Factor (1KHz)	0.005

Optical Properties @23°C	Details
Spectral Transmission:	$\geq 50\%$ @ 550 nm $\geq 95\%$ @ 1100-1600 nm $\geq 98\%$ @ 800-1000 nm
Refractive Index:	1.569 @589 nm

EPO-TEK® MED-353NDP Advantages & Suggested Application Notes

- **Fiber and Electro-Optics**
 - Impregnating and terminating fiber optic image bundles and light guides,
 - Manufacture of all kinds of endoscopes
- **Imaging Technologies**
 - OCT using NIR laser for cardiac and ophthalmic imaging
 - Endoscopy with camera and video interface
 - Temperature probes integration, subcomponent bonding and final assembly of MRI and CT machines
- **Ultrasound / Ultrasonic**
 - Adhesive for catheter delivered surgical mapping, 3D imaging and mapping catheters; catheter ultrasound for cardiac therapy
 - Front-end ultrasound fabrication adhesive responsible for PZT arrays
 - Back-end PZT process enabling transducers, ultrasound probe repair adhesive
- **Life Sciences and MicroFluidics**
 - DNA and gene sequencers, readers and amplification circuits
 - Potting, over-coating and weather proofing, fitness style wrist watches and wearable devices
- **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
 - Pressure and pH monitoring catheters
- **Implantable Devices**
 - Subcomponents for Ventricular Assist Devices (VAD) fabrication including pumps, coils, and magnets
 - Adhesive for ophthalmic implants; plastic bonding in intraocular lens (IOL) microsensors for intraocular pressure
 - Hearing aids and implants; acoustic circuits and structural assembly.
 - Enabling neurostimulator technologies used for sleep apnea, bladder control and other conditions
 - Adhesive pacemakers, ICDs, and IPGs
 - Neurovascular implants treating aneurysm, stroke, epilepsy, and Parkinson's Disease
- **Surgical Tools**
 - High power laser optics for general, reconstructive and cosmetic surgery
 - Dental device adhesive, light or hand instrument
 - Impregnating coil motors in orthopedic bone saws



EPOXY TECHNOLOGY, INC.
14 FORTUNE DRIVE | BILLERICA, MA 01821
(978) 667-3805
FAX (978) 663-9782
meridianadhesives.com/electronics