

Date: September 2017
Rev: VI
No. of Components: Two
Mix Ratio by Weight: 1 : 1
Specific Gravity: Part A: 1.20 Part B: 0.90
Pot Life: 10 Minutes
Shelf Life- Bulk: 10 months at room temperature

Recommended Cure: 23°C / 2 Hours

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**
- Contact techserv@epotek.com for alternatives designed to meet European regulatory requirements.

Product Description: EPO-TEK® 302 is a two component, fast-gelling, room temperature curing epoxy, designed for electronic, optical, and general applications.

Typical Properties: Cure condition: Varies as required 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) @ 20 rpm:	5,000 - 10,000	cPs	
Thixotropic Index:	N/A		
* Glass Transition Temp:	≥ 40	°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:	191	x 10 ⁻⁶ in/in°C
Shore D Hardness:	73		
Lap Shear @ 23°C:	1,756	psi	
Die Shear @ 23°C:	≥ 5	Kg	1,778 psi
Degradation Temp:	261	°C	
Weight Loss:			
	@ 200°C:	2.68	%
	@ 250°C:	8.39	%
Suggested Operating Temperature:	< 200 °C (Intermittent)		
Storage Modulus:	153,918	psi	
* Particle Size:	N/A		

ELECTRICAL AND THERMAL PROPERTIES:			
Thermal Conductivity:	N/A		
Volume Resistivity @ 23°C:	≥ 2 x 10 ¹³	Ohm-cm	
Dielectric Constant (1KHz):	2.95		
Dissipation Factor (1KHz):	0.010		

OPTICAL PROPERTIES @ 23°C:			
Spectral Transmission:	> 75% @ 340 - 420	nm	
	> 85% @ 440 - 900	nm	
	> 88% @ 900 - 1600	nm	
Refractive Index:	1.5442 @ 589	nm	

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.

EPOXY TECHNOLOGY, INC.

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www.epotek.com

EPO-TEK® 302 Advantages & Suggested Application Notes:

- Due to its versatility, it may be used to adhere, seal, pot or encapsulate.
- Allows for % transmission in VIS and NIR range. It can be used as an adhesive in the optical pathway of light.
- Convenient and easy to use 1:1 mix ratio allows for hand, meter mix, or specialty packaging.
- Suggested Applications:
 - Field Assembly: mix and cure in the field. Fast gelling and curing in 2-3 hours is accomplished.
 - Electronics: rapid prototyping of parts with fast curing epoxy – no need for oven cycle times.
 - Optics: active alignment of optics such as lenses, prisms, diodes, filters, etc. to opto-circuit.
 - Fiber Optics: “field curing” or field assembly of connectors and couplers; also suggested for fiber optic splicing.
 - General: arts and crafts repair, restoration, and hobbyists.

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