

Date: December 2022
Rev: XV
No. of Components: Two
Mix Ratio by Weight: 20 : 1
Specific Gravity: Part A: 1.20 Part B: 1.02
Pot Life: 4 Hours
Shelf Life- Bulk: One year at room temperature
Shelf Life- Syringe: Six months at -40°C

Recommended Cure: 150°C / 1 Hour

Minimum Alternative Cure(s):
May not achieve performance properties listed below
 150°C / 5 Minutes
 120°C / 15 Minutes
 100°C / 30 Minutes

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.

Product Description: EPO-TEK® OD2002 is a two component, thermally and electrically insulating, optical epoxy. Designed as a high Tg yet still compliant alternative to EPO-TEK® 353ND.

Typical Properties: Cure condition: 150°C / 1 Hour 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: Cloudy	Part B: Amber	
* Consistency:	Viscous liquid		
* Viscosity (23°C) @ 5 rpm:	24,000-42,000	cPs	
Thixotropic Index:	N/A		
* Glass Transition Temp:	≥ 140	°C (Dynamic Cure: 20-200°C/ISO 25 Min; Ramp -10-200°C @20°C/Min)	
Coefficient of Thermal Expansion (CTE):			
	Below Tg:	45	x 10 ⁻⁶ in/in°C
	Above Tg:	187	x 10 ⁻⁶ in/in°C
Shore D Hardness:	69		
Lap Shear @ 23°C:	1,570	psi	
Die Shear @ 23°C:	≥ 10	Kg	3,556 psi
Degradation Temp:	443 °C		
Weight Loss:			
	@ 200°C:	< 0.05	%
	@ 250°C:	< 0.05	%
	@ 300°C:	< 0.05	%
Suggested Operating Temperature:	< 350 °C (Intermittent)		
Storage Modulus:	263,291	psi	

ELECTRICAL AND THERMAL PROPERTIES:			
Thermal Conductivity:	N/A		
Volume Resistivity @ 23°C:	≥ 2 x 10 ¹²	Ohm-cm	
Dielectric Constant (1KHz):	2.83		
Dissipation Factor (1KHz):	0.011		

OPTICAL PROPERTIES @ 23°C:			
Spectral Transmission:	≥ 98% @ 800-1640	nm	
Refractive Index:	1.5728 @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.

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www.epotek.com

EPO-TEK® OD2002 Advantages & Suggested Application Notes:

- Highly autoclave resistant; bonded devices rated to 1000 autoclave cycles.

- Suggested Applications:
 - Fiber Optic: fiber terminations to ferrules

 - Optoelectronics packaging

 - Hybrids: lid sealing with near hermetic leak rate

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