EPO-TEK® OD2002

Technical Data Sheet
For Reference Only
High Tg Optical Epoxy

Date:	September 2017	
Rev:	XI	
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:	< 325	°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

EPOXY TECHNOLOGY, INC.
14 FORTUNE DRIVE, BILLERICA, MA 01821 (978) 667-3805, FAX (978) 663-9782
www.epotek.com

EPO-TEK® OD2002

Technical Data Sheet
For Reference Only
High Tg Optical Epoxy

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

EPOXY TECHNOLOGY, INC.
14 FORTUNE DRIVE, BILLERICA, MA 01821 (978) 667-3805, FAX (978) 663-9782
www.epotek.com