

Date: June 2017 **Rev:** XI
No. of Components: Single
Mix Ratio by Weight: N/A
Specific Gravity: 1.17
Pot Life: N/A
Shelf Life: One year refrigerated

Recommended Cure	
Iron-Doped Mercury Flood Lamp 100 mW/cm ² @ 240-365 nm	> 30 sec.
Alternative Cures*	
Iron-Doped Mercury Spot Lamp	> 90 sec.
365nm LED Flood Lamp	> 90 sec.
Pulsed Mercury Lamp	> 60 sec.
UV Cure is complete after 24 hours from UV Exposure	
* Contact Technical Services for application-specific variations	

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 Products 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..
- Thermal post-cure beneficial - contact techserv@epotek.com for recommendations.

Product Description: EPO-TEK[®] OG142-87 is a single component, low viscosity, UV curable epoxy for adhesive sealing and encapsulating fiber optic and optoelectronic packaging application. It is a replacement version of EPO-TEK[®] OG142-13 with better bonding strength and moisture resistance.

Typical Properties: *Cure condition: varies as required *denotes test on lot acceptance basis Data below is not guaranteed. To be used as a guide only, not as a specification. Different batches, conditions & applications yield differing results.*

PHYSICAL PROPERTIES:

* Color (before cure):	Clear/Colorless
* Consistency:	Pourable liquid
* Viscosity (23°C) @ 100 rpm:	250 - 600 cPs
Thixotropic Index:	N/A
* Glass Transition Temp:	≥ 100 °C (Dynamic Cure:20-200°C/ISO 25 Min; Ramp -10-200°C @ 20°C/Min)
Coefficient of Thermal Expansion (CTE):	
Below Tg:	50 x 10 ⁻⁶ in/in°C
Above Tg:	162 x 10 ⁻⁶ in/in°C
Shore D Hardness:	82
Lap Shear @ 23°C:	N/A
Die Shear:	
UV Cure:	≥ 25 Kg 8,890 psi
UV Cure + 23°C/24 Hours	25.1 Kg 8,925.6 psi
UV Cure + 80°C/1 Hour	25.1 Kg 8,925.6 psi
Degradation Temp:	384 °C
Weight Loss:	
@ 200°C	0.32 %
@ 250°C	0.64 %
@ 300°C	1.58 %
Suggested Operating Temperature:	< 300 °C (Intermittent)
Storage Modulus:	520,650 psi
* Particle Size:	N/A

OPTICAL PROPERTIES @ 23°C:

Spectral Transmission:	≥ 97% @ 580-1,660 nm
Refractive Index (uncured):	1.4925 @ 589 nm
Refractive Index (cured):	1.5058 @ 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.

14 FORTUNE DRIVE, BILLERICA, MA 01821 (978) 667-3805, FAX (978) 663-9782

www.epotek.com

EPO-TEK[®] OG142-87 Advantages & Suggested Application Notes:

- Semiconductor: fill for UV dam and fill encapsulation over ICs and wire bonds. Commonly potted into cavities, epoxy dams, or plastic rings
- Fiber Optic: secure fibers into V-grooves; mounting glass cover over fiber arrays
 - Adheres glass and plastic lens for fiber/lens arrays
 - Fiber splicing, coupling, and joining. Maintains consistent alignment in active optical pathways
- Optics: adheres glass, Lexan, polycarbonate, and many other plastics
- Adhesive in the active beam path capable of transmitting light in the 400-200 nm range
- Bonds beam splitter cubes and prisms

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