EPOXY
TECHNOLOGY

Product Information Sheet

EPO-TEK® OG142-95

Date: September 2023 **Rev:** VI

Material Description: EPO-TEK® OG142-95 is a single component, low viscosity, UV curable epoxy for adhesive sealing and encapsulating fiber optic and optoelectronic packaging applications. It is a replacement version of EPO-TEK® OG142-17 with better bonding strength and moisture resistance.

Number of Components:	Single
Mix Ratio by Weight:	N/A
Specific Gravity:	1.17
Pot Life:	N/A
Shelf Life:	One year at room temperature

Recommended Cure	
Iron-Doped Mercury Flood Lamp ***100 mW/cm‘ @ 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.

MATERIAL CHARACTERISTICS: *Cure condition: Varies as required *Testing on lot acceptance basis Data below is not guaranteed.*
To be used as a guide only, not as a specification. Different batches, conditions and applications yield differing results.

PHYSICAL PROPERTIES:			
* **Color (before cure):**		Clear/Colorless	
* **Consistency:**		Viscous liquid	
* **Viscosity (23°C) @ 100 rpm:**		300 - 700	cPs
Thixotropic Index:		N/A	
* **Glass Transition Temp:**		≥ 100	°C (Dynamic Cure:20-200°C; Ramp -10-200°C @ 20°C/Min)
Coefficient of Thermal Expansion (CTE):			
	Below Tg:	50	$\times 10^{-6}$ in/in°C
	Above Tg:	162	$\times 10^{-6}$ in/in°C
Shore D Hardness:		82	
Die Shear:		≥ 15	Kg / 5,334 psi
Degradation Temp:		357	°C
Weight Loss:	**@ 200°C**	0.39	**%**
	@ 250°C	1.18	**%**
	@ 300°C	3.09	**%**
Suggested Operating Temperature:		< 300	°C (Intermittent)
Storage Modulus:		520,650	psi

OPTICAL PROPERTIES @ 23°C:		
Spectral Transmission:	≥ 97% @ 580-1,660	nm
Refractive Index (uncured):	1.4924 @ 589	nm
Refractive Index (cured):	1.5123 @ 589	nm

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

A Meridian Adhesives Group Company