

Product Information Sheet

EPO-TEK® OG133-8

Date: December 2017 **Rev:** VII

Material Description: EPO-TEK® OG133-8 is a single component, UV curable, thixotropic flexible epoxy adhesive/encapsulant designed for semiconductor and opto-electronic packaging. Glob top over IC and wire bonds, and low stress bonding of fiber optic components, are common applications. It is a replacement for EPO-TEK® OG133-5, and a non-flow version of EPO-TEK® OG133-7.

Number of Components: Single

Mix Ratio by Weight: N/A

Specific Gravity: 1.13

Pot Life: N/A

Shelf Life- Bulk: One year at room temperature

Recommended Cure	
Iron-Doped Mercury Flood Lamp	> 90 sec. <i>100 mW/cm² @ 240-365 nm</i>
Alternative Cures*	
Iron-Doped Mercury Spot Lamp	> 8 min.
365nm LED Flood Lamp	> 9.5 min.
Pulsed Mercury Lamp	> 90 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):	Cloudy/Colorless
* Consistency:	Slightly thixotropic paste
* Viscosity (23°C) @ 100 rpm:	1,000 - 1,500 cPs
Thixotropic Index:	3.1
* Glass Transition Temp:	≤ 10 °C (Post-Cure Dynamic Scan:20-200°C; Ramp -40-200°C @ 20°C/Min)
Coefficient of Thermal Expansion (CTE):	
Below Tg:	43 x 10 ⁻⁶ in/in°C
Above Tg	222 x 10 ⁻⁶ in/in°C
Shore A Hardness:	65
Die Shear @ 23°C:	≥ 3.2 Kg 1,137.9 psi
Degradation Temp:	353 °C
Weight Loss:	
@ 200°C	2.37 %
@ 250°C	3.64 %
@ 300°C	5.72 %
Suggested Operating Temperature:	< 250 °C (Intermittent)
Storage Modulus:	< 1,000 psi
* Particle Size:	≤ 10 microns

OPTICAL PROPERTIES @ 23°C:	
Spectral Transmission:	≥ 90% @ 580-800 nm
	≥ 95% @ 820-1,660 nm
Refractive Index (uncured):	1.5041 @ 589 nm
Refractive Index (cured):	1.5244 @ 589 nm

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.