

Product Information Sheet

EPO-TEK® OG159-2

Date: June 2017

Rev: V

Material Description:

EPO-TEK® OG159-2 is a single component, high viscosity, UV curable epoxy adhesive designed for sealing glass plates together in the LCD/OLED/display industry. It contains 1mil glass beads for bond line control. Common applications include semiconductor, electro-optics, fiber optic, and scientific/OEM. It can be applied by screen printing or dispensing techniques. It is capable of coating, adhering, sealing, and encapsulating devices.

Number of Components: Single

Mix Ratio by Weight: N/A

Specific Gravity: 1.18

Pot Life: N/A

Shelf Life- Bulk: One year at room temperature

Shelf Life- Syringe: One year at room temperature

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.

Recommended Cure	
Iron-Doped Mercury Flood Lamp	> 30 sec. <i>100 mW/cm² @ 240-365 nm</i>
Alternative Cures*	
Iron-Doped Mercury Spot Lamp	> 90 sec.
365nm LED Flood Lamp	> 90 sec.
Pulsed Mercury Lamp	> 90 sec.
UV Cure is complete after 24 hours from UV Exposure	
* Contact Technical Services for application-specific variations	

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):	White	
* Consistency:	Thixotropic paste	
* Viscosity (23°C) @ 2.5 rpm:	100,000 - 140,000 cPs	
Thixotropic Index:	N/A	
* Glass Transition Temp:	≥ 30 °C (Dynamic Cure:20-200°C/ISO 25 Min; Ramp -10-200°C @ 20°C/Min)	
Coefficient of Thermal Expansion (CTE):		
Below Tg:	58 x 10 ⁻⁶ in/in°C	
Above Tg:	244 x 10 ⁻⁶ in/in°C	
Shore D Hardness:	69	
Lap Shear @ 23°C:	N/A	
Die Shear:		
UV Cure:	≥ 5 Kg	1,778 psi
UV Cure + 23°C/24 Hours:	23.4 Kg	8,321.0 psi
UV Cure + 80°C/1 Hour:	23.5 Kg	8,356.6 psi
UV Cure + 120°C/1 Hour:	23.0 Kg	8,178.8 psi
UV Cure + 150°C/1 Hour:	25.2 Kg	8,961.1 psi
Degradation Temp:	443 °C	
Weight Loss:		
@ 200°C	0.13 %	
@ 250°C	0.44 %	
@ 300°C	0.97 %	
Suggested Operating Temperature:	< 300 °C (Intermittent)	
Storage Modulus:	341,084 psi	
* Particle Size:	≤ 30 microns	

OPTICAL PROPERTIES @ 23°C:

Spectral Transmission:	≥ 98% @ 580 - 2,000 nm
Refractive index (uncured):	1.5684 @ 589 nm
Refractive Index (cured):	1.5715 @ 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.