Product Information Sheet

EPO-TEK® OG116

Date: June 2017 **Rev:** V

Material Description:

EPO-TEK® OG116 is a single component, high index, high Tg, UV cure high viscosity adhesive. It was designed for optoelectronic applications including fiber optic packaging, sensor devices, SCI-OEM optics, and general electronic assembly.

Number of Components: Single
Mix Ratio by Weight: N/A
Specific Gravity: 1.2
Pot Life: N/A
Shelf Life: One year at room temperature

Recommended Cure	
Iron-Doped Mercury Flood Lamp ***100 mW/cm² @ 240-365 nm***	**> 30 sec.**
Alternative Cures*	
Iron-Doped Mercury Spot Lamp	> 5 min.
365nm LED Flood Lamp	> 4 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):**		Clear/Colorless	
* **Consistency:**		Viscous liquid	
* **Viscosity (23°C) @ 2.5 rpm:**		80,000 - 105,000	cPs
Thixotropic Index:		N/A	
* **Glass Transition Temp:**		≥ 135	°C (Dynamic Cure:20-200°C/ISO 25 Min; Ramp -10-200°C @ 20°C/Min)
Coefficient of Thermal Expansion (CTE):			
	Below Tg:	56	x 10^{-6} in/in°C
	Above Tg:	165	x 10^{-6} in/in°C
Die Shear:			
UV Cure:		≥10	Kg / 3,556 psi
UV Cure + 23°C/24 Hours		26.3	Kg / 9,352.3 psi
UV Cure + 80°C/1 Hour:		27.0	Kg / 9,601.2 psi
UV Cure + 120°C/1 Hour:		29.3	Kg / 10,419.1 psi
Degradation Temp:		424	°C
Weight Loss:	**@ 200°C**	0.19	**%**
	@ 250°C	0.40	**%**
	@ 300°C	0.68	**%**
Suggested Operating Temperature:		< 300	°C (Intermittent)
Storage Modulus:		215,745	psi

OPTICAL PROPERTIES @ 23°C:		
Spectral Transmission:	≥ 98% @ 560-1,660	nm
	89% @ 400	nm
Refractive Index (uncured):	1.5733 @ 589	nm
Refractive Index (cured):	1.5892 @ 589	nm

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