

Product Information Sheet

EPO-TEK® OG142-112-LH

Date: February 2023

Rev: VI

Material Description:

EPO-TEK® OG142-112-LH is a low halogen version of OG142-112, single component, low viscosity, UV curable epoxy for adhesive sealing and encapsulating fiber optic and optoelectronic packaging applications.

Number of Components: Single
Mix Ratio by Weight: N/A
Specific Gravity: 1.19
Pot Life: N/A
Shelf Life- Bulk: One year refrigerated
Shelf Life- Syringe: One year refrigerated

Recommended Cure	
Iron-Doped Mercury Flood Lamp <i>100 mW/cm² @ 240-365 nm</i>	> 90 sec.
Alternative Cures*	
Iron-Doped Mercury Spot Lamp	> 2 min.
365nm LED Flood Lamp	> 4 min.
Pulsed Mercury Lamp	> 2.5 min.
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) may vary from those stated below when syringe packaging and/or post-processing is required.

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:	Pourable Liquid
* Viscosity (23°C) @ 100 rpm:	800 - 2,000 cPs
Thixotropic Index:	N/A
* Glass Transition Temp:	≥ 129 °C (Dynamic Cure:20-200°C @ 20°C/Min)
Coefficient of Thermal Expansion (CTE):	
Below Tg:	55 x 10 ⁻⁶ in/in°C
Above Tg:	158 x 10 ⁻⁶ in/in°C
Shore D Hardness:	83
Die Shear:	
UV Cure	22 Kg 7,832.2
UV Cure + 23°C/24 Hours	21.2 Kg 7,538.7
UV Cure + 80°C/1 Hour	19.3 Kg 6,863.1
UV Cure + 120°C/1 Hour	23.9 Kg 8,498.8
Degradation Temp:	406 °C
Weight Loss:	
@ 200°C	0.12 %
@ 250°C	0.43 %
@ 300°C	1.04 %
Suggested Operating Temperature:	< 300 °C (Intermittent)
Storage Modulus:	592,522 psi
Particle Size:	N/A

OPTICAL PROPERTIES:

Spectral Transmission @ 23°C:	≥ 96% @ 460-1620 nm	
Index of Refraction:	1.5374 @ 589 nm	@ 23°C (uncured)
	1.5629 @ 587 nm	(cured)
	1.5523 @ 830 nm	(cured)
	1.5446 @ 1550 nm	(cured)

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