



**Manufacturer:**  
Epoxy Technology

**Product Name:**  
EPO-TEK® OG142-112 Low Viscosity Epoxy, UV Cure (3cc Syringe)

**Manufacturer Part Number:**  
OG142-112-3CC



Learn More

▶ Click here for more details on the EPO-TEK® OG142-112 Low Viscosity Epoxy, UV Cure (3cc Syringe)



**Date:** June 2017  
**No. of Components:** Single  
**Mix Ratio by Weight:** N/A  
**Specific Gravity:** 1.18  
**Pot Life:** N/A  
**Shelf Life:** One year refrigerated

**Rev:** VIII

**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.

**EPO-TEK® OG142-112**  
Technical Data Sheet  
For Reference Only  
UV Cure Optical Epoxy

**Recommended Cure**

Iron-Doped Mercury Flood Lamp > 30 sec.  
100 mW/cm<sup>2</sup> @ 240-365 nm

**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

**Product Description:** EPO-TEK® OG142-112 is a single component, low viscosity epoxy for adhesive sealing and encapsulating fiber optic and opto-electronic packaging applications.

**Typical Properties:** Cure condition: Varies as required \*denotes test on lot acceptance basis Data below is not guaranteed. To be used as a guide only, not as a specification. Different batches, conditions & applications yield differing results.

**PHYSICAL PROPERTIES:**

* Color (before cure):	Clear/Colorless
* Consistency:	Pourable liquid
* Viscosity (23°C) @ 100 rpm:	1,200 - 1,700 cPs
* Thixotropic Index:	N/A
* Glass Transition Temp:	≥ 90 °C (Dynamic Cure: 20-200°C/ISO 25 Min; Ramp: -10-200°C @ 20°C/Min)
<b>Coefficient of Thermal Expansion (CTE):</b>	
Below Tg:	55 x 10 <sup>-6</sup> in/in°C
Above Tg:	158 x 10 <sup>-6</sup> in/in°C
Shore D Hardness:	83
<b>Die Shear:</b>	
UV Cure:	≥ 20 Kg 7,112 psi
UV Cure + 23°C/24 Hours:	28.1 Kg 9,992.4 psi
<b>Degradation Temp:</b>	
384 °C	
<b>Weight Loss:</b>	@ 200°C
	0.27 %
	@ 250°C
	0.81 %
	@ 300°C
	1.75 %
<b>Suggested Operating Temperature:</b>	< 300 °C (Intermittent)
<b>Storage Modulus:</b>	592,522 psi

**OPTICAL PROPERTIES @ 23°C:**

<b>Spectral Transmission:</b>	≥ 97% @ 500-1,660 nm
<b>Refractive Index (uncured):</b>	1.5374 @ 589 nm
<b>Refractive Index (cured):</b>	1.5560 @ 589 nm

Epoxyes and Adhesives for Demanding Applications™

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.

Contact the professionals at Fiber Optic Center for a quote or to get more details.

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Product specifications and data are subject to  
change without notice. FOC last update 1/14/2026.



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#### EPO-TEK® OG142-112 Advantages & Suggested Application Notes:

- Semiconductor: glob top "fill" encapsulant over IC's and wire bonds. It can be potted into cavities or around die that utilize a dam or ring.
- Fiber Optic:
  - ◊ Securing fibers into V-grooves; mounting glass cover slip over v-groove arrays; adhesive for fiber/ lens arrays.
  - ◊ Adhesive for the PLC device onto optical bench.
  - ◊ Fiber splicing, coupling and joining. Active alignment of optics into package.
- Optics:
  - ◊ Adhesion to all types of glasses, Lexan polycarbonate, and many more plastics and laminates.
  - ◊ Adhesive in the beam-pathway; capable of transmitting light from 400 to 2000 nm range.
  - ◊ Bonding beam splitter cubes and prisms together.
  - ◊ Adhesion to micro molded lenses.
- Potting:
  - ◊ Sealing and weather-proofing the solar ribbon connections to the environment via glass framed CIGS PV modules.

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