



## Product Information Sheet

**MATERIAL ID:****EPO-TEK<sup>®</sup> OG142-87 (formerly 90-87-6)****Date:** Sep 2013**Rev:** IX**Material Description:** Single component, low viscosity, UV curable epoxy for adhesive sealing and encapsulating fiber optic and optoelectronic packaging application. Replacement version of EPO-TEK<sup>®</sup> OG142-13 with better bonding strength and moisture resistance.**Number of Components:** Single**Mix Ratio by Weight:** N/A**Recommended Cure:** 100mW/cm<sup>2</sup> @ 240-365 nm for >2 minutes, depending on thickness  
- under an F-type Mercury lamp**Specific Gravity:** 1.17**Pot Life:** N/A**Shelf Life:** One year refrigerated

NOTE: Container(s) should be kept closed when not in use. Filled systems should be stirred thoroughly before mixing and prior to use.  
Thermal post-cure beneficial - contact [techserv@epotek.com](mailto:techserv@epotek.com) for recommendations.

**MATERIAL CHARACTERISTICS:** To be used as a guide only, not as a specification. Data below is not guaranteed. Different batches, conditions and applications yield differing results; Cure condition: 100mW/cm<sup>2</sup> for >2 minutes @ 320-500 nm + 150°C/1 Hour

\* denotes test on lot acceptance basis

**PHYSICAL PROPERTIES:**

* <b>Color (before cure):</b>	Clear/Colorless
* <b>Consistency</b>	Pourable liquid
* <b>Viscosity (23°C): @ 100 rpm</b>	250 - 600 cPs
<b>Thixotropic Index:</b>	N/A
* <b>Glass Transition Temp:</b>	≥ 100 °C (Post-Cure Dynamic Scan: 20-200°C; Ramp -10-200°C @ 20°C/Min)
<b>Coefficient of Thermal Expansion (CTE):</b>	
<b>Below Tg:</b>	50 x 10 <sup>-6</sup> in/in°C
<b>Above Tg:</b>	162 x 10 <sup>-6</sup> in/in°C
<b>Shore D Hardness:</b>	82
<b>Lap Shear @ 23°C:</b>	N/A
<b>Die Shear @ 23°C:</b>	> 20 Kg    6,800 psi
<b>Degradation Temp:</b>	384 °C
<b>Weight Loss:</b>	
<b>@ 200°C</b>	0.32 %
<b>@ 250°C</b>	0.64 %
<b>@ 300°C</b>	1.58 %
<b>Operating Temp:</b>	
<b>Continuous:</b>	- 55°C to            200 °C
<b>Intermittent:</b>	- 55°C to            300 °C
<b>Storage Modulus:</b>	520,650 psi
<b>Particle Size:</b>	N/A

**ELECTRICAL AND THERMAL PROPERTIES:****Thermal Conductivity:** N/A**OPTICAL PROPERTIES @ 23°C:**

<b>Spectral Transmission:</b>	> 97% @ 580-1660 nm
<b>Refractive Index (uncured):</b>	1.4925 @ 589 nm
<b>Refractive Index (cured):</b>	1.5058 @ 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.**

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