

## Preliminary Product Information Sheet

### EPO-TEK<sup>®</sup> UD1927 (formerly 113-92-7A)

*Note: These are typical properties to be used as a guide only, not a specification. Data below is not guaranteed. Different batches, conditions and applications yield differing results.*

<b>Date:</b>	January 2017	<b>Rev:</b>	II
<b>Material Description:</b>	A single component, low viscosity UV curable epoxy for adhesive sealing and encapsulating fiber optic and optoelectronic packaging application.		
<b>Number of Components:</b>	Single		
<b>Mix Ratio by Weight:</b>	N/A		
<b>Specific Gravity:</b>	1.17		
<b>Pot Life:</b>	N/A		
<b>Shelf Life- Bulk:</b>	One year refrigerated		

Recommended Cure	
Iron-Doped Mercury Flood Lamp <i>100 mW/cm<sup>2</sup> @ 240-365 nm</i>	> 2 min.
Alternative Cures*	
Iron-Doped Mercury Spot Lamp	> 6 min.
365nm LED Flood Lamp	> 10 min.
Pulsed Mercury Lamp	> 3 min.
<b>UV Cure is complete after 24 hours from UV Exposure</b>	
<small>* Contact Technical Services for application-specific variations</small>	

**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.
- Thermal post-cure beneficial - contact [techserv@epotek.com](mailto:techserv@epotek.com) for recommendations.

**MATERIAL CHARACTERISTICS:**

PHYSICAL PROPERTIES:		Cure Condition: varies as required
<b>Color (before cure):</b>	Clear	
<b>Consistency:</b>	Pourable liquid	
<b>Viscosity (23°C) @ 100 rpm:</b>	546 cPs	
<b>Thixotropic Index:</b>	N/A	
<b>Glass Transition Temp:</b>	162 °C (Dynamic Cure:20-200°C/ISO 25 Min; Ramp -10-200°C @ 20°C/Min)	
<b>Shore D Hardness:</b>	80	
<b>Die Shear:</b>		
UV Cure	10 Kg	3,556 PSI
UV Cure + 23°C/24 Hours	10 Kg	3,556 PSI
UV Cure + 80°C/1 Hour	10 Kg	3,556 PSI
UV Cure + 120°C/1 Hour	18.5 Kg	6,578 PSI
<b>Degradation Temp:</b>	380 °C	
<b>Weight Loss:</b>		
@ 200°C	0.19 %	
@ 250°C	0.46 %	
@ 300°C	1.18 %	
<b>Suggested Operating Temperature:</b>	< 325 °C (Intermittent)	

OPTICAL PROPERTIES @ 23°C:	
<b>Spectral Transmission:</b>	≥96% @ 420 - 480 nm ≥99% @ 480 - 1680 nm
<b>Index of Refraction:</b>	1.5073 @ 589 nm

**The data above is INITIAL only - it may be changed at anytime, for any reason without notice to anyone. It is provided only as a guide for evaluation/consideration.**

\*These material characteristics are typical properties that are based on a limited number of samples/batches. All properties are based on the cure indicated above. Some properties may vary as manufactured quantities are scaled up to commercialized production levels.