

**Date:** August 2024      **Rev:** III  
**No. of Components:** Single  
**Specific Gravity:** 1.17  
**Pot Life:** 28 days  
**Shelf Life:** 6 months at -40°C

Recommended Cure	
<b>Iron-Doped Mercury Flood Lamp</b> <i>100 mW/cm<sup>2</sup> @ 240-365 nm</i>	<b>2 minutes</b>
<b>Followed by 80°C</b>	<b>1 hour</b>
Alternative Cures*	
80°C	> 1 hour
<i>Or 80°C for 1 hour preceded by any of:</i>	
Iron-Doped Mercury Spot Lamp	> 30 sec.
365nm LED Flood Lamp	> 30 sec.
Pulsed Mercury Lamp	> 30 sec.
<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) of the product 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.

**Product Description:** EPO-TEK<sup>®</sup> UD1214 is optically opaque epoxy, which can be cured by UV, UV plus thermal or heat only. It is especially designed for UV fast cure and following low temperature (< 80C) curing for shadow areas. It can be used as adhesive, sealing and encapsulation in semiconductor, electro-optics, fiber optics, circuit assembly and scientific/OEM industries for blocking out light in opto-packages.

**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):	Black		
* Consistency:	Smooth Thixotropic Paste		
* Viscosity (23°C) @ 10 rpm:	7,000 - 24,000 cPs		
Thixotropic Index:	2.3		
* Glass Transition Temp:	≥ 140 °C (Dynamic Cure:20-200°C/ISO 25 Min; Ramp -10-200°C @ 20°C/Min)		
<b>Coefficient of Thermal Expansion (CTE):</b>			
	<b>Below Tg:</b>	57 x 10 <sup>-6</sup> in/in°C	
	<b>Above Tg:</b>	168 x 10 <sup>-6</sup> in/in°C	
Shore D Hardness:	86		
<b>Die Shear:</b>			
UV Cure:	8.6 Kg	3,058	psi
UV Cure + 23°C/24 Hours:	8.7 Kg	3,093	psi
UV Cure + 80°C/1 Hour:	10.6 Kg	3,769	psi
UV Cure + 120°C/1 hour	15 Kg	5,334	psi
Degradation Temp:	401 °C		
Weight Loss:	@ 200°C	< 0.01 %	
	@ 250°C	0.02 %	
	@ 300°C	0.84 %	
Suggested Operating Temperature:	< 350 °C (Intermittent)		
Particle Size:	N/A		
OPTICAL PROPERTIES @ 23°C:			
Spectral Transmission:	≤ 2% @ 260-1,100nm		

**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.**

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