

Number of Components: Single

Mix Ratio By Weight: N/A

Specific Gravity: 1.14

Part A

Part B

Pot Life: N/A

Shelf Life: Six months refrigerated

Minimum Bond Line Cure Schedule\*:

100mW/cm<sup>2</sup> for >2 minutes @ 320-500 nm (depending on thickness)

*Note: Container(s) should be kept closed in a dark location when not in use. \*Please see Applications Note(s) available on our website.*

### Product Description:

EPO-TEK<sup>®</sup> UVO-114 is a single component, UV curable epoxy, designed for adhesive, sealing, coating and encapsulating applications found in semiconductor, electro-optics, fiber optics, medical, and scientific/OEM industries.

### EPO-TEK<sup>®</sup> UVO-114 Advantages and Application Notes:

- Being clear and colorless, it is capable of transmitting light in the 400-1600 nm range.
- Compatible with near-IR optics and packaging schemes.
- Can be used as an anti-scratch coating on lenses. Viscosity compatible with spin-coating techniques.
- Suggested Applications:
  - Semiconductor: glass-glass adhesive for CCD/CMOS devices; wafer level adhesive by spin coating.
  - Fiber Optics: adhesive for fibers in v-grooves; adhesive for bonding waveguides; adhesive for refractive index matching.
  - Scientific/OEM:
    - adhesive for prisms, beam splitter cubes, diffraction gratings.
    - capable of optical replication of over 10 million femto-liters per cm<sup>2</sup>. Contact [techserv@epotek.com](mailto:techserv@epotek.com) for more information.
- Contact us for application specific alternatives in viscosity, index of refraction (Nd), Tg, and color.

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

Physical Properties:	
*Color: Clear/Colorless	Die Shear Strength @ 23°C: ≥ 15 Kg / 5,100 psi
*Consistency: Pourable liquid	Degradation Temp. (TGA): 361°C
*Viscosity (@ 100 RPM/23°C): 350 - 550 cPs	Weight Loss:
Thixotropic Index: N/A	@ 200°C: 1.23%
*Glass Transition Temp.(Tg): ≥ 45°C (Dynamic Post- Cure	@ 250°C: 2.19%
Scan 20—200°C; Ramp -10—200°C @ 20°C/Min)	@ 300°C: 4.52%
Coefficient of Thermal Expansion (CTE):	Operating Temp:
Below Tg: 66 x 10 <sup>-6</sup> in/in/°C	Continuous: - 55°C to 150°C
Above Tg: 163 x 10 <sup>-6</sup> in/in/°C	Intermittent: - 55°C to 250°C
Shore D Hardness: 76	Storage Modulus @ 23°C: 226,142 psi
	Particle Size: N/A
Optical Properties @ 23°C:	
Index of Refraction @ 23°C: 1.5191 @ 589 nm	Spectral Transmission @ 23°C: > 97% @ 1550 nm
	> 94% @ 500-1400 nm
	> 79% @ 400nm

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[www.EPOTEK.com](http://www.EPOTEK.com)

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