

Date: February 2019
Rev: III
No. of Components: Two
Mix Ratio by Weight: 100 : 2
Specific Gravity: Part A: 2.70 Part B: 0.97
Pot Life: 8 Hours
Shelf Life: One year at room temperature

Recommended Cure: 150°C / 1 Hour

Minimum Alternative Cure(s):
May not achieve performance properties below
 150°C / 2 Minutes
 130°C / 15 Minutes

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.
- Syringe packaging will impact initial viscosity and effective pot life, potentially beyond stated parameters.

Product Description: EPO-TEK[®] E2001-6 is a two component, electrically and thermally conductive, snap cure, die attach epoxy. It was designed for JEDEC level IC plastic packaging of semiconductors, hybrid micro-electronics and photonic device assembly. It is a two component version of EPO-TEK[®] 3001-6.

Typical Properties: Cure condition: 150°C / 1 Hour Different batches, conditions & applications yield differing results.

Data below is not guaranteed. To be used as a guide only, not as a specification. * denotes test on lot acceptance basis

PHYSICAL PROPERTIES:			
* Color (before cure):	Part A: Silver	Part B: Amber	
* Consistency:	Smooth thixotropic paste		
* Viscosity (23°C) @ 50 rpm:	5,500 - 7,500	cPs	
Thixotropic Index:	2.4		
* Glass Transition Temp:	≥ 100	°C (Dynamic Cure: 20-220°C/ISO 25 Min; Ramp -10-200°C @20°C/Min)	
Coefficient of Thermal Expansion (CTE):			
Below Tg:	50	x 10 ⁻⁶ in/in°C	
Above Tg:	106	x 10 ⁻⁶ in/in°C	
Shore D Hardness:	83		
Lap Shear @ 23°C:	1,159	psi	
Die Shear @ 23°C:	≥ 5	Kg	1,778 psi
Degradation Temp:	425 °C		
Weight Loss:			
@ 200°C:	0.17	%	
@ 250°C:	0.20	%	
@ 300°C:	0.28	%	
Suggested Operating Temperature:	< 350 °C (Intermittent)		
Storage Modulus:	707,895	psi	
Ion Content	Cl ⁻ : 103 ppm	Na ⁺ :	14 ppm
	NH ₄ ⁺ : 26 ppm	K ⁺ :	1 ppm
* Particle Size:	≤ 20 microns		

ELECTRICAL AND THERMAL PROPERTIES:		
Thermal Conductivity:	1.54	W/mK
* Volume Resistivity @ 23°C:	≤ 0.0005	Ohm-cm
Volume Resistivity @ 23°C (150°C/5 Min cure):	0.002	Ohm-cm

Epoxyes and Adhesives for Demanding Applications™

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EPOXY TECHNOLOGY, INC.

14 FORTUNE DRIVE, BILLERICA, MA 01821 (978) 667-3805, FAX (978) 663-9782

www.epotek.com

EPO-TEK® E2001-6 Advantages & Suggested Application Notes:

- Capable of snap curing at relatively low temperatures, with reasonable pot-life of 8 hours.
- A two component supply allows for lower transportation costs in overseas shipments, due to elimination of dry ice.
- Designed for high volume dispensing and syringe rheology. Stamping, pin transfer, printing, or manual methods can be also used.
- Suggested applications:
 - ◇ Semiconductor:
 - Snap cure of IC's onto die paddle of lead-frame. Adhesion to Si, Cu, Ag, Au.
 - Fast cure of lead-frames in magazines inside box ovens.
 - Compatible with die size up to 300 mil x 300 mil.
 - ◇ Opto-electronics / Photonics packaging:
 - Die attaching laser or photo diode chips for fiber optic modules.
 - Adhesion to surfaces such as Pt, Au, ceramic, kovar, stainless steel, and metallized glass.
 - LED die attach.
 - ITO bonding in LCDs.
 - ◇ PCB and general electronic assembly. COB die attach direct onto substrate.
- Increased pot life is available. Contact techserv@epotek.com for your best recommendation.

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