

Number of Components:	Two	Minimum Bond Line Cure Schedule*:	
Mix Ratio By Weight:	1:1	175°C	45 Seconds
Specific Gravity:		150°C	5 Minutes
Part A	1.93	120°C	15 Minutes
Part B	3.07	80°C	3 Hours
Pot Life:	3 Days		
Shelf Life:	One year at room temperature		

Note: Container(s) should be kept closed when not in use. For filled systems, mix contents of each container (A & B) thoroughly before mixing the two together. *Please see Applications Note available on our website.

Product Description:

EPO-TEK[®] H20E-LV is a two component, 100% solids silver-filled epoxy system designed specifically for chip bonding in microelectronic and optoelectronic applications. It is a low viscosity version of EPO-TEK[®] H20E, semiconductor die-attach epoxy.

EPO-TEK[®] H20E-LV Advantages & Application Notes:

- Especially recommended for use in high speed chip bonding systems where very fast cures are desired.
- Suggested for JEDEC Level III and II for plastic IC packaging.
- Capable of resisting TC wire bonding temperatures in the range of 300°C to 400°C.
- Ease of use: apply by dispensing, screen printing, die-stamping or by hand.
- Especially suited for high power devices and high current flow. High power LEDs.
- Opto-electronic packaging material: LED, LCDs and fiber components.

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; Cure condition: 150°C/1 hour; * denotes test on lot acceptance basis)

Physical Properties:	
*Color: Part A: Silver Part B: Silver	Weight Loss:
*Consistency: Smooth flowing paste	@ 200°C:
*Viscosity (@ 100 RPM/23°C): 1,800 – 2,800 cPs	@ 250°C:
Thixotropic Index: 3.43	@ 300°C: 2.34%
*Glass Transition Temp.(Tg): ≥ 80°C (Dynamic Cure 20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min)	Operating Temp:
Coefficient of Thermal Expansion (CTE):	Continuous: - 55°C to 200°C
Below Tg: 26 x 10 ⁻⁶ in/in/°C	Intermittent: - 55°C to 300°C
Above Tg: 93 x 10 ⁻⁶ in/in/°C	Storage Modulus @ 23°C: 640,479 psi
Shore D Hardness: 86	Ions: Cl ⁻ 102 ppm
Lap Shear Strength @ 23°C: 1,500 psi	Na ⁺ 98 ppm
Die Shear Strength @ 23°C: ≥ 5 Kg / 1,700 psi	NH ₄ ⁺ 320 ppm
Degradation Temp. (TGA): 400°C	K ⁺ 25 ppm
	*Particle Size: ≤ 45 Microns
Electrical Properties:	
*Volume Resistivity @ 23°C: ≤ 0.0004 Ohm-cm	
Thermal Properties:	
Thermal Conductivity: 2.5 W/mK	

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