

Number of Components:	Two	Minimum Bond Line Cure Schedule*:	
Mix Ratio By Weight:	1:1	180°C	1 Hour
Specific Gravity:		150°C	2 Hours
Part A	2.44		
Part B	3.07		
Pot Life:	3.5 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<sup>®</sup> H20E-175 is a two component epoxy designed for semiconductor die-attach. It is a higher Tg version of EPO-TEK<sup>®</sup> H20E. It was designed to be used in semiconductor / JEDEC packaging, microelectronic packaging of hybrids, as well as high temperature devices and assembly.

### EPO-TEK<sup>®</sup> H20E-175 Advantages & Application Notes:

- Thixotropic paste-like rheology allows for high speed dispensing and screen printing operations. It can also be applied by hand techniques using spatula, toothpick, or stamping chuck.
- Suggested for Rf/Microwave device packaging found in military, commercial, aerospace and cockpit, and industrial (down-hole petrochemical) circuits.
- > 3 day pot-life allows for mass production yielding low waste.

**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: 180°C/1 hour; \* denotes test on lot acceptance basis)

Physical Properties:	
*Color: Part A: Silver Part B: Silver	Weight Loss:
*Consistency: Smooth thixotropic paste	@ 200°C: 0.05%
*Viscosity (@ 100 RPM/23°C): 2,800 – 3,800 cPs	@ 250°C: 0.11%
Thixotropic Index: 3.1	@ 300°C: 0.25%
*Glass Transition Temp.(Tg): ≥ 85°C (Dynamic Cure 20—250°C /ISO 25 Min; Ramp -10—250°C @ 20°C/Min)	Operating Temp:
Coefficient of Thermal Expansion (CTE):	Continuous: - 55°C to 250°C
Below Tg: 20 x 10 <sup>-6</sup> in/in/°C	Intermittent: - 55°C to 350°C
Above Tg: 88 x 10 <sup>-6</sup> in/in/°C	Storage Modulus @ 23°C: 628,212 psi
Shore D Hardness: 70	Ions: Cl <sup>-</sup>
Lap Shear Strength @ 23°C: 1,292 psi	Na <sup>+</sup>
Die Shear Strength @ 23°C: ≥ 10 Kg / 3,400 psi	NH <sub>4</sub> <sup>+</sup>
Degradation Temp. (TGA): 450°C	K <sup>+</sup>
	*Particle Size: ≤ 45 Microns
Electrical Properties:	
*Volume Resistivity @ 23°C: ≤ 0.0004 Ohm-cm	
Thermal Properties:	
Thermal Conductivity: 2.04 W/mK	

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