### EPO-TEK® H22 Technical Data Sheet

**For Reference Only**

**Electrically Conductive, Silver Epoxy**

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**Number of Components:** Two  
**Mix Ratio By Weight:** 100:4.5  
**Specific Gravity:**  
- Part A: 2.03  
- Part B: 1.03  
**Pot Life:** 16 Hours  
**Shelf Life:** One year at room temperature

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**Minimum Bond Line Cure Schedule**:  
- 150°C: 5 Minutes  
- 120°C: 10 Minutes  
- 100°C: 20 Minutes

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**EPO-TEK® H22 Advantages & Application Notes:**

- A smooth, free flowing, slightly thixotropic paste, using a 100% solids system. It can be dispensed, screen printed, or manually applied.
- High Tg allows it to be used for high temperature applications.
- Outstanding high temperature properties and excellent solvent, chemical and moisture resistance.
- Extended pot life and fast curing at relatively low temperatures < 100°C.
- Designed to be used in the 300°C range for applications such as wire bonding operations and eutectic lid-sealing processes.
- Contains no solvents or thinners. Passes NASA low outgassing standard ASTM E595 with proper cure - [http://outgassing.nasa.gov/](http://outgassing.nasa.gov/)
- Can be used instead of eutectic solders for near-hermetic sealing.

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**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)**

<table>
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<tr>
<th>Physical Properties</th>
<th>Electrical Properties</th>
<th>Thermal Properties</th>
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| *Color: Part A*: Silver  
*Part B*: Amber | Weight Loss:  
@ 200°C: 0.09%  
@ 250°C: 0.23%  
@ 300°C: 0.42% |  
Thermal Conductivity: 0.94 W/mK |
| *Consistency*: Smooth flowing paste | Operating Temp:  
Continuous: -55°C to 250°C  
Intermittent: -55°C to 350°C |  
| *Viscosity (@ 20 RPM/23°C)*: 12,000 – 20,000 cPs | Storage Modulus @ 23°C: 540,120 psi |  
| Thixotropic Index: 2.36 | Ions:  
Cl⁻ 175 ppm  
Na⁺ 60 ppm  
NH₄⁺ 148 ppm  
K⁺ 6 ppm |  
| *Glass Transition Temp.(Tg): ≥ 100°C (Dynamic Cure  
20–200°C /ISO 25 Min; Ramp -10–200°C @ 20°C/Min)* | *Particle Size: ≤ 45 Microns |  
| Shore D Hardness: 80 |  
| Lap Shear Strength @ 23°C: 1,980 psi |  
| Die Shear Strength @ 23°C: ≥ 5 Kg / 1,700 psi |  
| Degradation Temp. (TGA): 454°C |  
| *Volume Resistivity @ 23°C*: ≤ 0.005 Ohm-cm |  |

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