

Number of Components:	Single	Minimum Bond Line Cure Schedule**:	
Mix Ratio By Weight:	N/A	180°C	1 Hour
Specific Gravity:	3.65	165°C	1.5 Hours
Part A			
Part B			
Pot Life*:	28 Days		
Shelf Life:	One year at -40°C		

Note: Container(s) should be kept closed when not in use. For filled systems, mix contents of container thoroughly.

**Complies with MIL-STD-883, Method 5011 Section 3.4.3*

***Please see Applications Note available on our website. Material should be brought to room temperature before opening the container.*

Product Description:

EPO-TEK[®] H35-175MPT is a single component, silver-filled epoxy for military hybrid die and component attach.

EPO-TEK[®] H35-175MPT Advantages & Application Notes:

- This epoxy can be classified as a higher viscosity version of EPO-TEK[®] H35-175MP, suggested for the following purposes:
 - Used for improved stencil printing via small apertures. (Not for dispensing)
 - Less flow-out between small pads like 0402 or 0603 caps and resistors
- Performs exceptionally well as a die attach for small chips such as GaAs, LEDs and diodes.
- Capable of resisting 260°C green reflow process, low outgassing in hermetic lid-seal processes near 300°C, and organic burn-in up to 150°C/1000 hours storage.
- Certified to MIL-STD 883/Test Method 5011 –yields low levels of water extractable monovalent ions such as Chlorides.
- Capable of JEDEC Level II die-attach packaging on die-paddles and lead-frames.
- Widely used epoxy; popular choice for silver-filled epoxies; opto-packaging, hybrids, and many types of substrates including kovar, ceramic and BT.

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:	
<p>*Color: Silver</p> <p>*Consistency: Smooth thixotropic paste</p> <p>*Viscosity (@ 2.5 RPM/23°C): 90,000 – 110,000 cPs</p> <p>Thixotropic Index: 4.6</p> <p>*Glass Transition Temp.(Tg): > 100°C (Dynamic Cure 20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min)</p> <p>Coefficient of Thermal Expansion (CTE): Below Tg: 35 x 10⁻⁶ in/in/°C Above Tg: 123 x 10⁻⁶ in/in/°C</p> <p>Shore D Hardness: 83</p> <p>Lap Shear Strength @ 23°C: 1,693 psi</p> <p>*Die Shear Strength @ 23°C: ≥ 10 Kg / 3,400 psi</p> <p>Degradation Temp. (TGA): 354°C</p>	<p>Weight Loss: *@ 200°C: 0.03% @ 250°C: 0.05% @ 300°C: 0.13%</p> <p>Operating Temp: Continuous: - 55°C to 200°C Intermittent: - 55°C to 300°C</p> <p>Storage Modulus @ 23°C: 423,781 psi</p> <p>*Ions: Cl⁻ < 200 ppm Na⁺ < 50 ppm NH₄⁺ 32 ppm K⁺ < 50 ppm</p> <p>*Particle Size: ≤ 20 Microns</p>
Electrical Properties:	
<p>*Volume Resistivity @ 23°C: ≤ 0.0005 Ohm-cm</p>	
Thermal Properties:	
<p>Thermal Conductivity: 2.67 W/mK</p>	

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