Product Information Sheet

MATERIAL ID: **EPO-TEK® H37-MPT**

Date: 05/2009 **Per:**

Rev: III

Material Description:	A single component, silver-filled and electrically conductive adhesive designed for semiconductor die attach and bonding SMDs for hybrid microelectronic packaging. It is certified and lot accepted to the requirements of MIL-STD 883 / Test Method 5011. It can be used for opto-packaging including LEDs, laser and photo-diodes, and fiber optic circuit assembly.
Number of Components:	Single
Mix Ratio by weight:	N/A
Cure Schedule (minimum):	150°C/1 Hour
Specific Gravity:	3.37 --- 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. Filled systems should be stirred thoroughly before mixing and prior to use

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

MATERIAL CHARACTERISTICS: *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 (before cure):**	Silver	**Weight Loss:**	
***Consistency:**	Smooth thixotropic paste	***@ 200°C:**	0.01 **%**
***Viscosity (23°C):**		**@ 250°C:**	
@ 2.5 **rpm**	80,000 - 110,000 **cPs**	**@ 300°C:**	
Thixotropic Index:	N/A	**Operating Temp:**	
***Glass Transition Temp:**	≥ 90 **°C** (Dynamic Cure 20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min)	**Continuous:**	- 55**°C to** + 200**°C**
		Intermittent:	- 55**°C to** + 300**°C**
Coefficient of Thermal Expansion (CTE):		**Storage Modulus @ 23°C:**	539,371 **psi**
Below Tg:	44 **x 10^{-6} in/in°C**	***Ion Content:**	
Above Tg:	108 **x 10^{-6} in/in°C**	**Cl^-:**	< 200 **ppm**
Shore D Hardness:	76	**NH_4^+:**	53 **ppm**
Lap Shear @ 23°C:	1,696 **psi**	**Na^+:**	< 50 **ppm**
***Die Shear @ 23°C:**	≥ 10 **Kg /** 3,400 **psi**	**K^+:**	< 50 **ppm**
Degradation Temp:	350**°C**	***Particle Size:**	≤ 20 **microns**

ELECTRICAL AND THERMAL PROPERTIES:

Thermal Conductivity:	2.82 **W/mK**	**Dielectric Constant (1KHz):**	N/A
***Volume Resistivity @ 23°C:**	≤ 0.0005 **Ohm-cm**	**Dissipation Factor (1KHz):**	N/A

OPTICAL PROPERTIES @ 23°C:

Spectral Transmission:	N/A	**Index of Refraction:**	N/A

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