

Number of Components:	Single	Minimum Bond Line Cure Schedule*:	
Mix Ratio By Weight:	N/A	150°C	1 Hour
Specific Gravity:	2.0		
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 each container (A & B) thoroughly before mixing the two together. *Please see Applications Note available on our website.

Product Description:

EPO-TEK[®] H67MP is a single component, thermally conductive epoxy for military hybrid die and component attach. It can also be used for semiconductor and high temperature ceramic and vacuum packaging.

EPO-TEK[®] H67MP Advantages & Application Notes:

- A very high viscosity and thixotropic paste suitable for screen printing or manual hand operations.
- Performs exceptionally well as a die-attach for small chips such as GaAs, LEDs and diodes, as well as SMDs.
- 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 ions such as chlorides.
- Capable of JEDEC Level II die-attach packaging on die-paddles and lead-frames.
- Widely used epoxy; popular choice for non-silver-filled die-attach epoxies; opto-packaging, hybrids, and many types of substrates including kovar, ceramic and BT.
- Available in different viscosity ranges – contact Technical Services at techserv@epotek.com for best recommendation.
- Can be used as nonconductive staking epoxy, in conjunction with EPO-TEK[®] H37MP for attaching SMDs to hybrid circuits.
- A lower temp cure alternative to EPO-TEK[®] H65-175MP.

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:	White
*Consistency:	Highly viscous paste
*Viscosity (@ 1 RPM/23°C):	300,000 – 400,000 cPs
Thixotropic Index:	N/A
*Glass Transition Temp.(Tg):	≥ 90°C (Dynamic Cure 20—200°C /ISO 25 Min; Ramp -40—200°C @ 20°C/Min)
Coefficient of Thermal Expansion (CTE):	
Below Tg:	16 x 10 ⁻⁶ in/in/°C
Above Tg:	68 x 10 ⁻⁶ in/in/°C
Shore D Hardness:	84
Lap Shear Strength @ 23°C:	1,522 psi
Die Shear Strength @ 23°C:	≥ 20 Kg / 6,800 psi
Degradation Temp. (TGA):	350°C
Weight Loss:	
@ 200°C:	0.48%
@ 250°C:	0.71%
@ 300°C:	1.22%
Operating Temp:	
Continuous:	- 55°C to 200°C
Intermittent:	- 55°C to 300°C
Storage Modulus @ 23°C:	641,860 psi
Ions:	
Cl ⁻	< 200 ppm
Na ⁺	< 50 ppm
NH ₄ ⁺	87 ppm
K ⁺	< 50 ppm
*Particle Size:	≤ 20 Microns
Thermal Properties:	
Thermal Conductivity:	0.45 W/mK
Electrical Properties:	
Dielectric Constant (1KHz):	4.9
Dissipation Factor (1KHz):	0.0041
Volume Resistivity @ 23°C:	≥ 6 x 10 ¹³ Ohm-cm

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