

Number of Components: Single
 Mix Ratio By Weight: N/A
 Specific Gravity: 1.58
 Part A
 Part B

Minimum Bond Line Cure Schedule*:
 B-Stage Cure 80°C 40 Minutes
 160°C 1 Hour

Pot Life: N/A Dry Time: 1 Day
 Shelf Life: 10 Months refrigerated

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[®] B9073-4 is a single component, thermally conductive, B-stageable epoxy, designed for hybrid micro-electronic assemblies.

EPO-TEK[®] B9073-4 Advantages & Application Notes:

- Solvent containing epoxy - this allows the user to pre-apply the epoxy onto substrates and lids. This can be an off-line process. Once ready for joining, the final A-stage cured layer is formed. This is especially important in substrate-attach or lid-sealing applications for hybrid or semi-hermetic packaging.
- Due to its paste-like rheology, the product may be applied by automatic screen printing or dispensing equipment. It can also be applied by hand.
- Once applied, it should be pre-cured or dried to remove the solvent.
- After drying away the solvent, a dry film of "un-cured" epoxy is left behind. It will need an A-stage cure when the lid or substrate is mounted on the hybrid.
- A similar B-stage process can also be used for heat-sinking at the PCB level. The product may be applied onto the PCB or heat sink directly as an off-line process to avoid manufacturing bottlenecks.
- The B-stage drying should be done in the same shift as it is applied. However, A-stage curing, theoretically speaking, can be hours or days later.
- B-staging is a process advantage only; it is not a performance advantage after cure. Contact techserv@epotek.com for your best recommendation.

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: B-stage 80°C/40 minutes – 160°C/1 hour; * denotes test on lot acceptance basis.)

Physical Properties:	
*Color: Grey	Die Shear Strength @ 23°C: ≥ 9 Kg / 3,060 psi
*Consistency: Smooth paste	Degradation Temp. (TGA): 328°C
*Viscosity (@ 10 RPM/23°C): 22,000 – 32,000 cPs	Weight Loss:
Thixotropic Index: N/A	@ 200°C: 1.8%
*Glass Transition Temp.(Tg): ≥ 80°C (Dynamic Cure	@ 250°C: 4.4%
20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min)	@ 300°C: 8.2%
Coefficient of Thermal Expansion (CTE):	Operating Temp:
Below Tg: 36 x 10 ⁻⁶ in/in/°C	Continuous: - 55°C to 100°C
Above Tg: 61 x 10 ⁻⁶ in/in/°C	Intermittent: - 55°C to 200°C
Shore D Hardness: 52	Storage Modulus @ 23°C: 730,162 psi
Lap Shear Strength @ 23°C: 1,912 psi	*Particle Size: ≤ 20 Microns
Thermal Properties:	
Thermal Conductivity: 0.76 W/mK	
Electrical Properties:	
Dielectric Constant (1KHz): N/A	Volume Resistivity @ 23°C: N/A
Dissipation Factor (1KHz): N/A	

EPOXY TECHNOLOGY, INC.

14 Fortune Drive, Billerica, MA 01821-3972 Phone: 978.667.3805 Fax: 978.663.9782

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