

Number of Components:	Two	Minimum Bond Line Cure Schedule*:	
Mix Ratio By Weight:	100:3	150°C	5 Minutes
Specific Gravity:		120°C	10 Minutes
Part A	2.52	100°C	20 Minutes
Part B	1.02		
Pot Life:	7 Hours		
Shelf Life:	One year at room temperature		

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.

Product Description:

EPO-TEK® 920-FL is a two component, high Tg, electrically insulating, thermally conductive epoxy designed for thermal management applications found in semiconductor, hybrid microelectronics, PCB, and optical industries. It is a low viscosity version of EPO-TEK® 920.

EPO-TEK® 920-FL Advantages & Application Notes:

- It can be an adhesive for mounting heat sinks and substrates, a seal for many types of packages, or a thermal potting compound.
- Rheology allows for a smooth free flowing paste, which allows ease of use for potting and casting applications, as well as syringe dispensing.
- Built-in color change from tan to an amber color. Suggested Applications:
 - Hybrids: thermal potting compound; potting connectors and potting transformers, mounting heat sinks to SMDs and ceramic circuits; potting, glob top protection over SMDs.
 - PCB Level: heat sinking adhesive; adhesion to Au, Cu, Al, FR4, many plastics, components and connectors.
 - Semiconductor: thermal management as semiconductor underfill or glob top encapsulant; potting IC packages like BGAs or CSPs.
- Available in many intermediate viscosity ranges. Contact techserv@epotek.com for your best recommendation.
- Low temperature curing < 120°C.

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: Part A: Grey Part B: Amber	Die Shear Strength @ 23°C: ≥ 20 Kg / 6,800 psi
*Consistency: Smooth flowing paste	Degradation Temp. (TGA): 362°C
*Viscosity (@ 20 RPM/23°C): 8,000 – 12,000 cPs	Weight Loss:
Thixotropic Index: 3.1	@ 200°C: 0.20%
*Glass Transition Temp.(Tg): ≥ 90°C (Dynamic Cure	@ 250°C: 0.28%
20—200°C /ISO 25 Min; Ramp -40—200°C @ 20°C/Min)	@ 300°C: 0.48%
Coefficient of Thermal Expansion (CTE):	Operating Temp:
Below Tg: 21 x 10 ⁻⁶ in/in/°C	Continuous: - 55°C to 200°C
Above Tg: 97 x 10 ⁻⁶ in/in/°C	Intermittent: - 55°C to 300°C
Shore D Hardness: 93	Storage Modulus @ 23°C: 783,073 psi
Lap Shear Strength @ 23°C: > 2,000 psi	*Particle Size: ≤ 50 Microns
Thermal Properties:	
Thermal Conductivity: 0.89 W/mK	
Electrical Properties:	
Dielectric Constant (1KHz): 5.96	Volume Resistivity @ 23°C: ≥ 4 x 10 ¹³ Ohm-cm
Dissipation Factor (1KHz): 0.009	

EPOXY TECHNOLOGY, INC.
14 Fortune Drive, Billerica, MA 01821-3972 Phone: 978.667.3805 Fax: 978.663.9782
www.EPOTEK.com

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