

Number of Components: Two

Mix Ratio By Weight: 1:1

Specific Gravity:

Part A 2.93

Part B 2.86

Pot Life: 1.5 Days

Shelf Life: One year at room temperature

*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.*

Minimum Bond Line Cure Schedule*:

150°C 5 Minutes

120°C 15 Minutes

80°C 3 Hours

Product Description:

EPO-TEK[®] N20E is a two component, electrically and thermally conductive, epoxy adhesive designed for semiconductor and electronics assembly. Its applications and field conditions include the optical, sensor, consumer, and industrial industries.

EPO-TEK[®] N20E Advantages & Application Notes:

- Pot life of more than one day allows for mass production and minimal waste.
- A convenient, simple 1:1 mix ratio allows for specialty packaging including double-barrel syringes, or BIPAX.
- Suggested applications:
 - PCB / Electronics: EMI and Rf shielding of Rf and Microwave devices.
 - Opto-electronics: IR, digital imaging, and sensor device interconnects.
- Versatility in cure allows for low temperature, box oven, SMT tunnel oven, hand held, or snap curing techniques to be realized.
- Thixotropic nature allows for deposition methods like dispensing, screen printing, stamping, or other patterning techniques.

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: Dark Grey Part B: Dark Grey	Weight Loss:
*Consistency: Smooth paste	@ 200°C: 0.07%
*Viscosity (@ 20 RPM/23°C): 5,000 – 10,000 cPs	@ 250°C: 0.22%
Thixotropic Index: 1.9	@ 300°C: 0.81%
*Glass Transition Temp.(Tg): ≥ 70°C (Dynamic Cure 20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min)	Operating Temp:
Coefficient of Thermal Expansion (CTE):	Continuous: - 55°C to 200°C
Below Tg: 27×10^{-6} in/in/°C	Intermittent: - 55°C to 300°C
Above Tg: 89×10^{-6} in/in/°C	Storage Modulus @ 23°C: 1,141,788 psi
Shore D Hardness: 50	Ions: Cl ⁻ 34 ppm
Lap Shear Strength @ 23°C:	Na ⁺ 265 ppm
Die Shear Strength @ 23°C: ≥ 10 Kg / 3,400 psi	NH ₄ ⁺ 16 ppm
Degradation Temp. (TGA): 478°C	K ⁺ 10 ppm
	*Particle Size: ≤ 45 Microns
Electrical Properties:	
*Volume Resistivity @ 23°C: ≤ 0.07 Ohm-cm	
Thermal Properties:	
Thermal Conductivity: 1.19 W/mK	

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