

Number of Components:	Two	Minimum Bond Line Cure Schedule*:	
Mix Ratio By Weight:	1:1	175°C	45 Seconds
Specific Gravity:		150°C	5 Minutes
Part A	2.04	120°C	15 Minutes
Part B	3.07	100°C	45 Minutes
Pot Life:	3 Days	90°C	90 Minutes
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.

Product Description:

EPO-TEK[®] H20S-MC is a version of EPO-TEK[®] H20S, semiconductor die-attach epoxy. It was designed for improved electrical conductivity using a low temperature cure such as 90°C/90 minutes. In addition to the high electrical conductivity, the short curing cycles, the proven reliability, and the convenient mix ratio, EPO-TEK[®] H20S-MC is extremely simple to use.

EPO-TEK[®] H20S-MC Advantages & Application Notes:

- Especially recommended for use in high speed epoxy chip bonding systems where fast cures are highly desirable.
- Suggested for JEDEC Level III and II plastic IC packaging.
- The low temperature cure makes it ideal for flex circuitry and other low stress applications.
- It is used extensively for bonding quartz crystal oscillators and other stress sensitive chips.
- Used for die and SMD bonding inside hybrid/hermetic packages such as DIP and TO-Cans; also EMI/RF shielding of micro-electronics.
- Ideal for making ITO electrical contacts in LCD packaging.

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: Silver Part B: Silver	Weight Loss:
*Consistency: Smooth thixotropic paste	@ 200°C: 0.39%
*Viscosity (@ 100 RPM/23°C): 1,700 – 2,000 cPs	@ 250°C: 0.55%
Thixotropic Index: 5.1	@ 300°C: 1.10%
*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: 44 x 10 ⁻⁶ in/in/°C	Intermittent: - 55°C to 300°C
Above Tg: 148 x 10 ⁻⁶ in/in/°C	Storage Modulus @ 23°C: 354,627 psi
Shore D Hardness: 65	Ions: Cl ⁻ 119 ppm
Lap Shear Strength @ 23°C: 1,570 psi	Na ⁺ 0 ppm
Die Shear Strength @ 23°C: ≥ 5 Kg / 1,700 psi	NH ₄ ⁺
Degradation Temp. (TGA): 467°C	K ⁺ 2 ppm
	*Particle Size: ≤ 20 Microns
Electrical Properties:	
*Volume Resistivity @ 23°C: ≤ 0.0005 Ohm-cm	*Volume Resistivity @ 23°C (90°C/90 minute cure): ≤ 0.005 Ohm-cm
Thermal Properties:	
Thermal Conductivity: 1.79 W/mK	

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