

## Epoxy Technology EPO-TEK® E2001-HV Electrically Conductive, Silver-Filled Epoxy

Category : Polymer , Thermoset , Epoxy , Epoxy, Electrically Conductive

### Material Notes:

**Product Description:** EPO-TEK® E2001-HV is a snap cure, two component, silver-filled die attach adhesive for semiconductor plastic IC packaging. **Advantages & Application Notes:** Snap cure adhesive or fast-cure; chips can be cured in-line < 90 seconds travel time; or lead-frames can be loaded into magazines for box oven curing

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Epoxy-Technology-EPO-TEK-E2001-HV-Electrically-Conductive-Silver-Filled-Epoxy.php](http://www.lookpolymers.com/polymer_Epoxy-Technology-EPO-TEK-E2001-HV-Electrically-Conductive-Silver-Filled-Epoxy.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.04 g/cc	1.04 g/cc	Part B
	2.67 g/cc	2.67 g/cc	Part A
Particle Size	<= 20 µm	<= 20 µm	
Viscosity	11000 - 14000 cP	11000 - 14000 cP	20 rpm
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	80	80	
Tensile Modulus	2.15 GPa	312 ksi	Storage
Shear Strength	10.26 MPa	1488 psi	Lap
	>= 23.4 MPa	>= 3400 psi	Die

Thermal Properties	Metric	English	Comments
CTE, linear	24.0 µm/m-°C	13.3 µin/in-°F	Below Tg
	77.0 µm/m-°C	42.8 µin/in-°F	Above Tg
Thermal Conductivity	1.09 W/m-K	7.56 BTU-in/hr-ft <sup>2</sup> -°F	
Maximum Service Temperature, Air	200 °C	392 °F	Continuous
	300 °C	572 °F	Intermittent
Minimum Service Temperature, Air	-55.0 °C	-67.0 °F	Continuous
	-55.0 °C	-67.0 °F	Intermittent
Glass Transition Temp, Tg	>= 100 °C	>= 212 °F	Dynamic Cure 20–200°C /ISO 25 Min; Ramp -10–200°C @ 20°C/Min

Thermal Properties	Metric	English	Comments
Decomposition Temperature	433 °C	811 °F	Degradation Temperature: TGA

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 0.00050 ohm-cm	>= 0.00050 ohm-cm	

Chemical Properties	Metric	English	Comments
Ionic Impurities - Na (Sodium)	6.0 ppm	6.0 ppm	
Ionic Impurities - K (Potassium)	4.0 ppm	4.0 ppm	
Ionic Impurities - Cl (Chloride)	125 ppm	125 ppm	

Processing Properties	Metric	English	Comments
Cure Time	2.00 min	0.0333 hour	Bond Line
	@Temperature 180 °C	@Temperature 356 °F	
	15.0 min	0.250 hour	Bond Line
	@Temperature 150 °C	@Temperature 302 °F	
Pot Life	1440 min	1440 min	
Shelf Life	12.0 Month	12.0 Month	
	@Temperature 25.0 °C	@Temperature 77.0 °F	

Descriptive Properties	Value	Comments
Color	Amber	Part B
	Silver	Part A
Consistency	Smooth Thixotropic Paste	
Ionic Impurities NH4	27 ppm	
Mix Ratio By Weight	100:3	
Number of Components	Two	
Thixotropic Index	3.9	
Weight Loss	0.23%	300°C

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