

Epoxy Technology EPO-TEK® H20E-LV Electrically Conductive, Silver Epoxy

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

Material Notes:

Product Description: EPO-TEK® H20E-LV is a two component, 100% solids silver-filled epoxy system designed specifically for chip bonding in microelectronic and optoelectronic applications. It is a low viscosity version of EPO-TEK® H20E, semiconductor die-attach epoxy. **Advantages & Application Notes:** Especially recommended for use in high speed chip bonding systems where very fast cures are desired. Suggested for JEDEC Level III and II for plastic IC packaging. Capable of resisting TC wire bonding temperatures in the range of 300°C to 400°C. Ease of use: apply by dispensing, screen printing, die-stamping or by hand. Especially suited for high power devices and high current flow. High power LEDs. Opto-electronic packaging material: LED, LCDs and fiber components. Information Provided by Epoxy Technology

Order this product through the following link:

http://www.lookpolymers.com/polymer_Epoxy-Technology-EPO-TEK-H20E-LV-Electrically-Conductive-Silver-Epoxy.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.93 g/cc	1.93 g/cc	Part A
	3.07 g/cc	3.07 g/cc	Part B
Particle Size	<= 45 µm	<= 45 µm	
Viscosity	1800 - 2800 cP	1800 - 2800 cP	100 rpm
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	86	86	
Tensile Modulus	4.42 GPa	640 ksi	Storage
Shear Strength	10.3 MPa	1500 psi	Lap
	>= 11.7 MPa	>= 1700 psi	Die

Thermal Properties	Metric	English	Comments
CTE, linear	26.0 µm/m-°C	14.4 µin/in-°F	Below Tg
	93.0 µm/m-°C	51.7 µin/in-°F	Above Tg
Thermal Conductivity	2.50 W/m-K	17.4 BTU-in/hr-ft²-°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

Thermal Properties	Metric 	English	Comments
Glass Transition Temp, Tg	>= 80.0 °C	>= 176 °F	Dynamic Cure 20—200°C /ISO 25 Min; Ramp - 10—200°C @ 20°C/Min
Decomposition Temperature	400 °C	752 °F	Degradation Temperature

Electrical Properties	Metric	English	Comments
Volume Resistivity	<= 0.00040 ohm-cm	<= 0.00040 ohm-cm	

Chemical Properties	Metric	English	Comments
Ionic Impurities - Na (Sodium)	98 ppm	98 ppm	
Ionic Impurities - K (Potassium)	25 ppm	25 ppm	
Ionic Impurities - Cl (Chloride)	102 ppm	102 ppm	

Processing Properties	Metric	English	Comments
Cure Time	0.750 min	0.0125 hour	Minimum Bond Line
	@Temperature 175 °C	@Temperature 347 °F	
	5.00 min	0.0833 hour	Minimum Bond Line
	@Temperature 150 °C	@Temperature 302 °F	
	15.0 min	0.250 hour	Minimum Bond Line
	@Temperature 120 °C	@Temperature 248 °F	
Pot Life	4320 min	4320 min	
Shelf Life	12.0 Month	12.0 Month	
	@Temperature 25.0 °C	@Temperature 77.0 °F	

Descriptive Properties	Value	Comments
Color	Silver	Part A
	Silver	Part B
Consistency	Smooth flowing paste	
Ionic Impurities NH4	320 ppm	
Mix Ratio By Weight	1:1	
Number of Components	Two	
Thixotropic Index	3.43	

Descriptive Properties	Value	Comments
------------------------	-------	----------

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com
Email : sales@lookpolymers.com
Tel : +86 021-51131842
Mobile : +86 13061808058
Skype : lookpolymers
Address : United North Road 215,Fengxian District, Shanghai City,China