

Epoxy Technology EPO-TEK® H31 Electrically Conductive, Silver Epoxy

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

Material Notes:

Product Description: EPO-TEK® H31 is a single component, silver-filled, electrically conductive epoxy designed for semiconductor die attach applications found in hybrids, JEDEC, and opto-electronic packaging. **Advantages & Application Notes:** Bright / shiny silver provides high reflectance, especially good for enhancing LED overall brightness. Creamy thixotropic paste allows for high volume dispensing and pin transfer methods of application. Available in several different viscosity versions. **Suggested applications:** Semiconductor: die attach chips onto lead-frames for JEDEC Level III and II packaging. Adhesion to Ag-spot lead-frame. Hybrids: GaAs and Si die attach, adhesion to Au-plated chips, general electrical contacts for ceramic circuits, substrate attach to ground package. Opto-electronic: single LED packaging in TO-cans, LED arrays on PCB or substrate, adhesion to ITO in LCDs, and sensor device/OEM instrumentation. PCB/General: EMI or Rf shielding of electronics. Passes NASA low outgassing standard ASTM E595 with proper cure Long pot-life, up to 28 days, yields low waste between manufacturing shifts and avoids higher cost dry ice shipments

Information Provided by Epoxy Technology

Order this product through the following link:

http://www.lookpolymers.com/polymer_Epoxy-Technology-EPO-TEK-H31-Electrically-Conductive-Silver-Epoxy.php

Physical Properties	Metric	English	Comments
Specific Gravity	2.20 g/cc	2.20 g/cc	
Particle Size	<= 45 µm	<= 45 µm	
Viscosity	15000 - 25000 cP @Temperature 23.0 °C	15000 - 25000 cP @Temperature 73.4 °F	5 rpm

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	84	84	
Tensile Modulus	5.6857 GPa	824.64 ksi	Storage
Shear Strength	9.10 MPa	1320 psi	Lap
	>= 11.7 MPa	>= 1700 psi	Die

Thermal Properties	Metric	English	Comments
CTE, linear	48.0 µm/m-°C	26.7 µin/in-°F	Below Tg
	201 µm/m-°C	112 µin/in-°F	Above Tg
Thermal Conductivity	1.10 W/m-K	7.63 BTU-in/hr-ft²-°F	
Maximum Service Temperature, Air	200 °C	392 °F	Continuous
	300 °C	572 °F	Intermittent

Minimum Service Temperature, Air Thermal Properties	-55.0 °C Metric	-67.0 °F English	Continuous Comments
	-55.0 °C	-67.0 °F	Intermittent
Glass Transition Temp, Tg	>= 110 °C	>= 230 °F	Dynamic Cure 20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min
Decomposition Temperature	370 °C	698 °F	Degradation Temperature

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

Chemical Properties	Metric	English	Comments
Ionic Impurities - Na (Sodium)	143 ppm	143 ppm	
Ionic Impurities - K (Potassium)	41 ppm	41 ppm	
Ionic Impurities - Cl (Chloride)	7.0 ppm	7.0 ppm	

Processing Properties	Metric	English	Comments
Cure Time	60.0 min @Temperature 150 °C	1.00 hour @Temperature 302 °F	Minimum Bond Line
Pot Life	40320 min	40320 min	
Shelf Life	3.00 Month @Temperature 25.0 °C	3.00 Month @Temperature 77.0 °F	

Descriptive Properties	Value	Comments
Color	Silver	
Consistency	Smooth paste	
Ionic Impurities NH4	8 ppm	
Number of Components	Single	
Thixotropic Index	3	
Weight Loss	0.06%	250°C

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