Epoxy Technology EPO-TEK® P1011S Electrically Conductive Modified Polyimide

Category : Polymer , Adhesive , Thermoset , Epoxy , Epoxy, Electrically Conductive , Polyimide, TS

Material Notes:

Product Description: EPO-TEK® P1011S is a single component, modified polyimide, high temperature grade, silver-filled electrically and thermally conductive adhesive designed for semiconductor die-attach and hybrid microelectronic packaging. Advantages & Application Notes: It is a lower viscosity version of EPO-TEK® P1011 for improved die-stamping or pin transfer process methodsSuggested applications in hybrid micro-electronics:Resisting ceramic or metal SMD lid sealing processes >300°C.Die attaching quartz crystal oscillators to the Au post of TO-cans or Au/ pads on ceramic PCBs.Down-hole petrochemical circuitsAtomic clocks, microwave or millimeter wave circuitsDie-attaching LED and EEPROM chips inside alpha numeric displays, resisting glass lid-sealing processes >300°C.A two-step cure is suggested for optimal adhesive properties.Available in alternative viscositiesInformation Provided by Epoxy Technology

Order this product through the following link:
http://www.lookpolymers.com/polymer_Epoxy-Technology-EPO-TEK-P1011S-Electrically-Conductive-Modified-Polyimide.php

Physical Properties	Metric	English	Comments
Specific Gravity	2.44 g/cc	2.44 g/cc	
Particle Size	<= 20 µm	<= 20 µm	
Viscosity	6500 - 10500 cP @Temperature 23.0 °C	6500 - 10500 cP @Temperature 73.4 °F	20 rpm

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	71	71	
Tensile Modulus	4.41 GPa	639 ksi	Storage
Shear Strength	>= 9.38 MPa	>= 1360 psi	Die

Thermal Properties	Metric	English	Comments
CTE, linear	28.0 µm/m-°C	15.6 µin/in-°F	Below Tg
	57.0 µm/m-°C	31.7 µin/in-°F	Above Tg
Thermal Conductivity	>= 2.78 W/m-K	>= 19.3 BTU-in/hr-ft^{2}-°F	
Maximum Service Temperature, Air	225 °C	437 °F	Continuous
	325 °C	617 °F	Intermittent
Minimum Service Temperature, Air	-55.0 °C	-67.0 °F	Continuous
	-55.0 °C	-67.0 °F	Intermittent

Thermal Properties	Metric	English	Comments
Glass Transition Temp, Tg	[illegible] °C	[illegible] °F	Ramp [illegible]°C/Min to 300°C
Decomposition Temperature	379 °C	714 °F	Degradation Temperature

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

Processing Properties	Metric	English	Comments
Dry Time	<= 168 hour	<= 168 hour	
Cure Time	30.0 min @Temperature 80.0 °C	0.500 hour @Temperature 176 °F	Pre-Bake, Minimum Bond Line
	90.0 min @Temperature 285 °C	1.50 hour @Temperature 545 °F	Post-Cure, Minimum Bond Line
Shelf Life	12.0 Month @Temperature 25.0 °C	12.0 Month @Temperature 77.0 °F	

Descriptive Properties	Value	Comments
Color	Silver	
Consistency	Smooth slightly thixotropic paste	
Number of Components	Single	
Thixotropic Index	1.8	
Weight Loss	0.08%	200°C
	0.09%	250°C
	0.16%	300°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