

Epoxy Technology EPO-TEK® EJ2189 Electrically Conductive Epoxy

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

Material Notes:

Product Description: EPO-TEK® EJ2189 is an electrically conductive, silver-filled epoxy paste. This two component system is designed for low temperature curing from ambient to 80°C, although other heat cures can be used. **Advantages & Application Notes:** Ease of use: smooth flowing paste allows for automated dispensing, stamping, brushing, or hand applications. Suggested applications include: EMI and Rf shielding; ITO interconnects in LCDs; low temperature cryogenic cooling. Exhibits superior adhesion to a wide variety of substrates including most metals, ceramics, glass and plastics. Hybrid/micro-electronic adhesive including die-attach and substrate attach for Rf and Microwave devices. Provides a metallic-like layer after cure. Information Provided by Epoxy Technology

Order this product through the following link:

http://www.lookpolymers.com/polymer_Epoxy-Technology-EPO-TEK-EJ2189-Electrically-Conductive-Epoxy.php

Physical Properties	Metric	English	Comments
Specific Gravity	0.940 g/cc	0.940 g/cc	Part B
	3.43 g/cc	3.43 g/cc	Part A
Particle Size	<= 45 µm	<= 45 µm	
Viscosity	55000 - 90000 cP	55000 - 90000 cP	1 rpm
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	60	60	
Tensile Modulus	1.90 GPa	276 ksi	Storage
Shear Strength	10.2 MPa	1480 psi	Lap
	>= 21.1 MPa	>= 3060 psi	Die

Thermal Properties	Metric	English	Comments
CTE, linear	53.0 µm/m-°C	29.4 µin/in-°F	Below Tg
	107 µm/m-°C	59.4 µin/in-°F	Above Tg
Thermal Conductivity	1.38 W/m-K	9.58 BTU-in/hr-ft ² -°F	
Maximum Service Temperature, Air	160 °C	320 °F	Continuous
	260 °C	500 °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	≥ 30.0 °C	≥ 86.0 °F	Dynamic Cure 20–200°C /ISO 25 Min; Ramp -10–200°C @ 20°C/Min
Decomposition Temperature	316 °C	601 °F	Degradation Temperature

Electrical Properties	Metric	English	Comments
Volume Resistivity	≤ 0.00050 ohm-cm	≤ 0.00050 ohm-cm	
	@Temperature 150 °C, Time 3600 sec	@Temperature 302 °F, Time 1.00 hour	
	≤ 0.0050 ohm-cm	≤ 0.0050 ohm-cm	
	@Temperature 80.0 °C, Time 10800 sec	@Temperature 176 °F, Time 3.00 hour	
	≤ 0.0090 ohm-cm	≤ 0.0090 ohm-cm	
	@Temperature 23.0 °C, Time 259000 sec	@Temperature 73.4 °F, Time 72.0 hour	

Chemical Properties	Metric	English	Comments
Ionic Impurities - Na (Sodium)	15 ppm	15 ppm	
Ionic Impurities - K (Potassium)	1.0 ppm	1.0 ppm	
Ionic Impurities - Cl (Chloride)	169 ppm	169 ppm	

Processing Properties	Metric	English	Comments
Cure Time	15.0 min	0.250 hour	
	@Temperature 150 °C	@Temperature 302 °F	
	180 min	3.00 hour	
	@Temperature 80.0 °C	@Temperature 176 °F	
	4320 min	72.0 hour	
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Pot Life	240 min	240 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

Descriptive Properties	Value of thixotropic paste	Comments
Ionic Impurities NH4	40 ppm	
Mix Ratio By Weight	10:1	
Number of Components	Two	
Thixotropic Index	5.2	
Weight Loss	0.31%	200°C
	0.65%	250°C
	1.93%	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