EPOXY TECHNOLOGY

EPO-TEK® EJ2189-LV

Technical Data Sheet
For Reference Only
Electrically Conductive Epoxy

Date:	September 2017	
Rev:	VIII	
No. of Components:	Two	
Mix Ratio by Weight:	10 : 1	
Specific Gravity:	Part A: 3.07	Part B: 0.94
Pot Life:	4 Hours	
Shelf Life- Bulk:	One year at room temperature	

Recommended Cure: 150°C / 1 Hour

Minimum Alternative Cure(s):
May not achieve performance properties listed below
150°C / 15 Minutes
100°C / 1 Hour
80°C / 3 Hours
23°C / 3 Days

NOTES:
- Container(s) should be kept closed when not in use.
- Filled systems should be stirred thoroughly before mixing and prior to use.
- Performance properties (rheology, conductivity, others) of the product may vary from those stated on the data sheet when bi-pak/syringe packaging or post-processing of any kind is performed. Epoxy's warranties shall not apply to any products that have been reprocessed or repackaged from Epoxy's delivered status/container into any other containers of any kind, including but not limited to syringes, bi-paks, cartridges, pouches, tubes, capsules, films or other packages.
- Syringe packaging will impact initial viscosity and effective pot life, potentially beyond stated parameters.

Product Description: EPO-TEK® EJ2189-LV is an electrically conductive, silver-filled epoxy. This two component system is designed for reliable low temperature curing.

Typical Properties: Cure condition: Varies as required Different batches, conditions & applications yield differing results. Data below is not guaranteed. To be used as a guide only, not as a specification. * denotes test on lot acceptance basis

PHYSICAL PROPERTIES:				
* Color (before cure):	Part A: Silver		Part B: Amber	
* Consistency:	Smooth flowing paste			
* Viscosity (23°C) @ 1 rpm:		25,000-45,000	cPs	
Thixotropic Index:		3.3		
* Glass Transition Temp:		≥ 40	°C (Dynamic Cure: 20-200°C/ISO 25 Min; Ramp -10-200°C @20°C/Min)	
Coefficient of Thermal Expansion (CTE):				
Below Tg:		52	x 10^{-6} in/in°C	
Above Tg:		89	x 10^{-6} in/in°C	
Shore D Hardness:		41		
Lap Shear @ 23°C:		1,336	psi	
Die Shear @ 23°C:		≥ 10	Kg	3,556 psi
Degradation Temp:		340	°C	
Weight Loss:				
@ 200°C:		0.34	%	
@ 250°C:		0.80	%	
@ 300°C:		1.58	%	
Suggested Operating Temperature:		< 250	°C (Intermittent)	
Storage Modulus:		213,672	psi	
Ion Content:	Cl^-:	201 ppm	Na^+:	27 ppm
	NH_4^+:	53 ppm	K^+:	2 ppm
* Particle Size:		≤ 45	microns	

ELECTRICAL AND THERMAL PROPERTIES:		
Thermal Conductivity:	2.5	W/mK
* Volume Resistivity @ 23°C (150°C/1 hour cure):	≤ 0.0005	Ohm-cm
* Volume Resistivity @ 23°C (80°C/3 hours):	≤ 0.005	Ohm-cm
* Volume Resistivity @ 23°C (25°C/40-60%RH/3 days):	≤ 0.009	Ohm-cm

Epoxies and Adhesives for Demanding Applications™
This information is based on data and tests believed to be accurate. Epoxy Technology, Inc. makes no warranties (expressed or implied) as to its accuracy and assumes no liability in connection with any use of this product.
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EPO-TEK® EJ2189-LV Advantages & Suggested Application Notes:

- Suggested application methods: dispensing, stamping, brushing, jetting, or spraying.
- Common applications: EMI and RF shielding, ITO interconnections in LCDs, cryogenic applications, SMD and die-attach.
- Adheres well to a wide variety of substrates including metals, ceramics, glass and engineering plastics.
- Low temperature die-attach used in hybrids, chip on board, and IC packages.

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