

**Date:** Oct 2015      **Rev:** VII  
**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 below*  
150°C / 15 Minutes  
100°C / 1 Hour  
80°C / 3 Hours  
23°C / 72 Hours

**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) may vary from those stated below when syringe packaging and/or post-processing is required.
- Syringe packaging will impact initial viscosity and effective pot life, potentially beyond stated parameters.

**Product Description:** EPO-TEK<sup>®</sup> 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 \*denotes test on lot acceptance basis Data below is not guaranteed. To be used as a guide only, not as a specification. Different batches, conditions & applications yield differing results.*

**PHYSICAL PROPERTIES:**

<b>* Color (before cure):</b>	Part A: Silver Part B: Amber		
<b>* Consistency:</b>	Smooth flowing paste		
<b>* Viscosity (23°C) @ 1 rpm:</b>	25,000 - 45,000 cPs		
<b>Thixotropic Index:</b>	3.3		
<b>* Glass Transition Temp:</b>	≥ 40 °C (Dynamic Cure:20-200°C/ISO 25 Min; Ramp -10-200°C @ 20°C/Min)		
<b>Coefficient of Thermal Expansion (CTE):</b>			
	<b>Below Tg:</b>	52 x 10 <sup>-6</sup> in/in°C	
	<b>Above Tg:</b>	89 x 10 <sup>-6</sup> in/in°C	
<b>Shore D Hardness:</b>	41		
<b>Lap Shear @ 23°C:</b>	1336 psi		
<b>Die Shear @ 23°C:</b>	≥ 10 Kg    3,400 psi		
<b>Degradation Temp:</b>	340 °C		
<b>Weight Loss:</b>	<b>@ 200°C</b>	0.34 %	
	<b>@ 250°C</b>	0.80 %	
	<b>@ 300°C</b>	1.58 %	
<b>Suggested Operating Temperature:</b>	< 250 °C (Intermittent)		
<b>Storage Modulus:</b>	213,672 psi		
<b>Ion Content:</b>	<b>Cl:</b>	201 ppm	<b>NA<sup>+</sup>:</b> 27 ppm
	<b>NH<sub>4</sub><sup>+</sup>:</b>	53 ppm	<b>K<sup>+</sup>:</b> 2 ppm
<b>* Particle Size:</b>	≤ 45 microns		

**ELECTRICAL AND THERMAL PROPERTIES:**

<b>Thermal Conductivity:</b>	2.5 W/mK
<b>* Volume Resistivity @ 23°C (25°C/40-60%RH/3 Day cure):</b>	≤ 0.009 Ohm-cm
<b>* Volume Resistivity @ 23°C (80°C/ 3 Hours):</b>	≤ 0.005 Ohm-cm
<b>* Volume Resistivity @ 23°C (150°C/ 1 Hour):</b>	≤ 0.0005 Ohm-cm

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**EPO-TEK<sup>®</sup> 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
- Low temperature die-attach used in hybrids, chip on board, and IC packages.

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