

Product Information Sheet

MATERIAL ID: EPO-TEK® EJ2189-LV
Date: Jan 2012
Rev: V
Material Description: Low viscosity, two-component, room temperature curing conductive epoxy
Number of Components: Two
Mix Ratio by Weight: 10:1
Cure Schedule (minimum): 150°C/15 Minutes - 100°C/1 Hour - 80°C/3 Hours - 23°C/72 Hours
Specific Gravity: Part A: 3.07 Part B: 0.94
Pot Life: 4 Hours
Shelf Life: One year at room temperature

NOTE: Container(s) should be kept closed when not in use. Filled systems should be stirred thoroughly before mixing and prior to use.

MATERIAL CHARACTERISTICS: To be used as a guide only, not as a specification. Data below is not guaranteed. Different batches, conditions and applications yield differing results; Cure condition: varies as required

* 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 | 3,400 psi | |
| Degradation Temp: | 340 °C | | |
| Weight Loss: | | | |
| @ 200°C | 0.34 % | | |
| @ 250°C | 0.80 % | | |
| @ 300°C | 1.58 % | | |
| Operating Temp: | | | |
| Continuous: | - 55°C to | 150 °C | |
| Intermittent: | - 55°C to | 250 °C | |
| Storage Modulus: | 213,672 psi | | |
| Ion Content: | | | |
| Cl: | 201 ppm | NA⁺: | 27 ppm |
| NH₄⁺: | 53 ppm | K⁺: | 2 ppm |
| * Particle Size: | < 45 microns | | |

ELECTRICAL AND THERMAL PROPERTIES:

| | |
|---|-----------------|
| Thermal Conductivity: | 2 W/mK |
| * Volume Resistivity @ 23°C (23°C/72 Hours): | ≤ 0.009 Ohm-cm |
| * Volume Resistivity @ 23°C (80°C/3 Hours): | ≤ 0.0005 Ohm-cm |
| * Volume Resistivity @ 23°C (150°C/1 Hour): | ≤ 0.0005 Ohm-cm |

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