

Date: Apr 2013

Rev: V

No. of Components: Two

Mix Ratio by Weight: 100 : 15

Specific Gravity: Part A: 1.36 Part B: 1.01

Pot Life: 2 Hours

Shelf Life: One year at room temperature

Recommended Cure:

80°C / 2 Hours

Minimum Alternative Cure(s):

may not achieve performance properties below

23°C / 2 Days

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

Product Description: EPO-TEK[®] T7109-19 is a two component, flexible, thermally conductive, electrically insulating epoxy paste designed for low stress and heat dissipation applications. It is a lower outgassing version of EPO-TEK[®] T7109-17 with similar thermal management.

Typical Properties:

To be used as a guide only, not as a specification. Different batches, conditions & applications yield differing results.

*Cure condition : 80°C/2 Hours * de notes test on lot acceptance basis Data below is not guaranteed.*

PHYSICAL PROPERTIES:

* Color (before cure):	Part A: Grey Part B: Clear/Colorless
* Consistency	Smooth paste
* Viscosity (23°C): @ 5 rpm	40,000-70,000 cPs
Thixotropic Index:	2.7
* 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:	59 x 10 ⁻⁶ in/in°C
Above Tg:	216 x 10 ⁻⁶ in/in°C
Shore D Hardness:	41
Lap Shear @ 23°C:	1,434
Die Shear @ 23°C:	≥ 5 Kg 1,700 psi
Degradation Temp:	338 °C
Weight Loss:	
@ 200°C	0.41 %
@ 250°C	0.68 %
@ 300°C	1.44 %
OperatingTemp: : Continuous:	- 55°C to 150°C
Intermittent:	- 55°C to 250°C
Storage Modulus:	29,931 psi
* Particle Size:	≤ 20 microns

ELECTRICAL AND THERMAL PROPERTIES:

Thermal Conductivity:	1.3 W/mK
Volume Resistivity @ 23°C:	≥ 5 x 10 ¹² Ohm-cm
Dielectric Constant (1KHz):	3.42
Dissipation Factor (1KHz):	0.030

Epoxyes 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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www.epotek.com

EPO-TEK[®] T7109-19 Advantages & Suggested Application Notes:

- Power devices:
 - ◇ Potting in semiconductor lithograph engine for ultra-high resolution wafer printing and low-stress bonding of ferrites; laminating Cu foils to substrates.
- Hybrids:
 - ◇ Bonding thermo-electric coolers (TEC's).
- Optics:
 - ◇ Die-attaching μ -LCDs to PCB/substrate.
 - ◇ Flexible potting of kapton flex PCB containing μ -LCD into the frame.
 - ◇ Adhesive for OEM optics including profilometry .
- Semiconductor:
 - ◇ Glob top over IC and wire bonds.
- General adhesive for Al, Cu, Kovar, ceramic, glass, PCBs, and most plastics.
- Rheology allows deposition by hand, dispensers or screen printers.

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