

Product Information Sheet

MATERIAL ID:

EPO-TEK® EE165-3

Date: 10/2006

Per:

Rev: II

A two component, silver-filled, electrically conductive epoxy made for bonding of SMDs, and general solder replacement at the PCB level and circuit assembly. It was designed to be low modulus and flexible in order to resist PCB drop testing.

Material Description:

Number of Components:

Two

Mix Ratio by weight:

100:2.5

Cure Schedule (minimum)

150°C/1 Hour - 125°C/2 Hours

Specific Gravity:

--- Part A: 4.03 Part B: 1.06

Pot Life:

10 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: 150°C/1 hour*
 * denotes test on lot acceptance basis

PHYSICAL PROPERTIES:			
*Color (before cure):	Part A: Silver Part B: Amber		
*Consistency:	Smooth thixotropic paste		
*Viscosity (23°C):		Die Shear @ 23°C:	≥ 5 Kg / 1,700 psi
@ 20 rpm	13,000 - 18,000 cPs	Degradation Temp:	363 °C
Thixotropic Index:	4.8	Weight Loss:	
*Glass Transition Temp:	≥ 20 °C (Dynamic Cure 20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min)	@ 200°C:	0.26 %
Coefficient of Thermal Expansion (CTE):		@ 250°C:	0.56 %
Below Tg:	30 x 10 ⁻⁶ in/in°C	@ 300°C:	
Above Tg:	212 x 10 ⁻⁶ in/in°C	Operating Temp:	
Shore D Hardness:	77	Continuous:	- 55°C to + 200°C
Lap Shear @ 23°C:	1,392 psi	Intermittent:	- 55°C to + 300°C
		Storage Modulus @ 23°C:	200,745 psi
		*Particle Size:	≤ 20 microns

ELECTRICAL AND THERMAL PROPERTIES:			
Thermal Conductivity:	2.3 W/mK	Dielectric Constant (1KHz):	N/A
*Volume Resistivity @ 23°C:	≤ 0.0002 Ohm-cm	Dissipation Factor (1KHz):	N/A

OPTICAL PROPERTIES @ 23°C:			
Spectral Transmission:	N/A	Index of Refraction:	N/A

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