

Product Information Sheet

MATERIAL ID:
EPO-TEK® 310M
Date: 12/2008

Per:
Rev: III

Material Description:

A two component, flexible, optically clear epoxy adhesive designed for optical, semiconductor, and medical applications.

Number of Components:

Two

Mix Ratio by weight:

10:5.5

Cure Schedule (minimum)

65°C/2 Hours - 23°C/1 Day

Specific Gravity:

--- Part A: 1.11 Part B: 1.08

Pot Life:

2 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: 65°C/2 Hours*

* denotes test on lot acceptance basis

PHYSICAL PROPERTIES:

*Color (before cure):	Part A: Clear/Colorless	Part B: Clear	
*Consistency:	Pourable liquid		Die Shear @ 23°C: ≥ 2 Kg / 680 psi
*Viscosity (23°C):			Degradation Temp: 397 °C
@ 100 rpm	450 - 850 cPs		Weight Loss:
Thixotropic Index:	N/A		@ 200°C: 0.09 %
*Glass Transition Temp:	≤ 30 °C (Dynamic Cure		@ 250°C: 0.28 %
20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min)			@ 300°C: 0.64 %
Coefficient of Thermal Expansion (CTE):			Operating Temp:
Below Tg:	78 x 10 ⁻⁶ in/in°C		Continuous: - 55°C to + 200°C
Above Tg:	222 x 10 ⁻⁶ in/in°C		Intermittent: - 55°C to + 300°C
Shore A Hardness:	69		Storage Modulus @ 23°C: 604 psi
Lap Shear @ 23°C:	306 psi		*Particle Size: N/A

ELECTRICAL AND THERMAL PROPERTIES:

Thermal Conductivity:	N/A	Dielectric Constant (1KHz):	8.23
Volume Resistivity @ 23°C:	≥ 1.8 x 10 ¹⁰ Ohm-cm	Dissipation Factor (1KHz):	0.122

OPTICAL PROPERTIES @ 23°C:

Spectral Transmission:	>97 % @ 400-1300 nm	Refractive Index (Uncured):	1.4969 @ 589 nm
	>90 % @ 1400-2200 nm		

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