

Product Information Sheet

MATERIAL ID:

EPO-TEK® M10-D

Date: 10/2006

Per:

Rev: 1

Material Description:

A single component, B-stageable epoxy paste for semiconductor, microelectronics, and optical assemblies. It can be used in hybrid assemblies for lid-sealing and substrate attach. In opto-packaging, it can be used as the main gasket seal of glass plates in LCDs, or for sealing filter windows onto opto-sensors.

Number of Components:

Single

Mix Ratio by weight:

N/A

Cure Schedule (minimum)

B-stage cure: 75°C/30 Minutes - Cure: 150°C/1 Hour

Specific Gravity:

1.35 --- Part A: Part B:

Pot Life:

2 Weeks - closed container

Dry Time:

> 1 Day

Shelf Life:

One year refrigerated

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; B-stage cure condition: 75°C/30 Minutes - Cure condition: 150°C/1 Hour * denotes test on lot acceptance basis*

PHYSICAL PROPERTIES:			
*Color (before cure):	Tan	Die Shear @ 23°C:	≥ 10 Kg / 3,400 psi
*Consistency:	Smooth thixotropic paste	Degradation Temp:	370 °C
*Viscosity (23°C):		Weight Loss:	
@ 50 rpm	3,000 - 6,000 cPs	@ 200°C:	1.31 %
Thixotropic Index:	9.2	@ 250°C:	2.76 %
Glass Transition Temp:	80 °C	@ 300°C:	5.75 %
Coefficient of Thermal Expansion (CTE):		Operating Temp:	
Below Tg:	35 x 10 ⁻⁶ in/in°C	Continuous:	- 55°C to + 200°C
Above Tg:	128 x 10 ⁻⁶ in/in°C	Intermittent:	- 55°C to + 300°C
Shore D Hardness:	72	Storage Modulus @ 23°C:	576,738 psi
Lap Shear @ 23°C:	580 psi	*Particle Size:	≤ 20 microns
ELECTRICAL AND THERMAL PROPERTIES:			
Thermal Conductivity:	0.42 W/mK	Dielectric Constant (1KHz):	4.32
Volume Resistivity @ 23°C:	≥ 5 x 10 ¹¹ Ohm-cm	Dissipation Factor (1KHz):	0.114
OPTICAL PROPERTIES @ 23°C:			
Spectral Transmission:	N/A	Index of Refraction:	N/A

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