Product Information Sheet

MATERIAL ID: **EPO-TEK® 314**
Date: 11/2007 **Per:**
Rev: III

Material Description:	A two component, high temperature grade, thermally and electrically insulating epoxy, designed for adhesive and sealing applications found in semiconductor, electro-optics, fiber optics, medical, and scientific/OEM industries. It is a low viscosity, optical grade epoxy with low index of refraction (Nd).
Number of Components:	Two
Mix Ratio by weight:	100:6
Cure Schedule (minimum)	180°C/30 Minutes - 150°C/1 Hour - 120°C/3 Hours
Specific Gravity:	--- Part A: 1.18 Part B: 1.23
Pot Life:	4 Days
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: Clear/Colorless Part B: Amber		
***Consistency:**	Pourable liquid	**Die Shear @ 23°C:**	≥ 15 **Kg** / 5100 **psi**
***Viscosity (23°C):**		**Degradation Temp:**	361 **°C**
@ 100 **rpm**	300 - 600 **cPs**	**Weight Loss:**	
Thixotropic Index:	N/A	**@ 200°C:**	0.18 **%**
***Glass Transition Temp:**	≥ 75 **°C** (Dynamic Cure 20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min)	**@ 250°C:**	0.43 **%**
		@ 300°C:	1.03 **%**
Coefficient of Thermal Expansion (CTE):		**Operating Temp:**	
Below Tg:	39 **x 10^{-6} in/in°C**	**Continuous:**	- 55**°C to** + 200**°C**
Above Tg:	134 **x 10^{-6} in/in°C**	**Intermittent:**	- 55**°C to** + 300**°C**
Shore D Hardness:	83	**Storage Modulus @ 23°C:**	275,210 **psi**
Lap Shear @ 23°C:	N/A	***Particle Size:**	N/A

ELECTRICAL AND THERMAL PROPERTIES:

Thermal Conductivity:	N/A	**Dielectric Constant (1KHz):**	3.25
Volume Resistivity @ 23°C:	≥ 1 x 10^{13} **Ohm-cm**	**Dissipation Factor (1KHz):**	0.0131

OPTICAL PROPERTIES @ 23°C:

Spectral Transmission:	>96 **% @** 440-1680 **nm**	**Refractive Index (uncured):**	1.4965 **@ 589 nm**

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