

Product Information Sheet

MATERIAL ID:

EPO-TEK® 383ND

Date: Jun 2010

Rev: IV

Material Description:

A slightly longer pot life version of EPO-TEK®353ND designed for high temperature, optical and structural applications inside the semiconductor, hybrid, electronic, fiber optic and medical industries.

Number of Components: Two

Mix Ratio by Weight: 10:1

Cure Schedule (minimum): 90°C/30 Minutes

Specific Gravity: Part A: 1.20 Part B: 0.99

Pot Life: 8 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: Clear	Part B: Slightly Yellow
* Consistency	Pourable liquid	
* Viscosity (23°C): @ 50 rpm	3,500 - 6,000 cPs	
Thixotropic Index:	N/A	
* Glass Transition Temp:	> 100 °C (Dynamic Cure: 20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min)	
Coefficient of Thermal Expansion (CTE):		
Below Tg:	34 x 10 ⁻⁶ in/in°C	
Above Tg:	129 x 10 ⁻⁶ in/in°C	
Shore D Hardness:	88	
Lap Shear @ 23°C:	> 2,000 psi	
Die Shear @ 23°C:	> 20 Kg	6,800 psi
Degradation Temp:	415 °C	
Weight Loss:		
@ 200°C	0.28 %	
@ 250°C	0.42 %	
@ 300°C	0.86 %	
Operating Temp:		
Continuous:	- 55°C to	250 °C
Intermittent:	- 55°C to	350 °C
Storage Modulus:	369,039 psi	
* Particle Size:	< 20 microns	

ELECTRICAL AND THERMAL PROPERTIES:

Thermal Conductivity:	N/A
Volume Resistivity @ 23°C:	> 3 x 10 ¹³ Ohm-cm
Dielectric Constant (1KHz):	2.58
Dissipation Factor (1KHz):	0.008

OPTICAL PROPERTIES @ 23°C:

Spectral Transmission:	> 90% @ 520 - 1660 nm
Index of Refraction:	1.5715 @ 589 nm

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