

Preliminary Product Information Sheet

(Note: These are typical properties to be used as a guide only, not a specification. Data below is not guaranteed. Different batches, conditions and applications yield differing results.)

MATERIAL ID: **EPO-TEK® 353ND-LH Ultra**
Date: 09/2009
Rev: I
Material Description: A two component, high temperature epoxy designed for semiconductor, hybrid, fiber optic and medical applications.. This product easily meets halogen-free requirements.
Number of Components: Two
Mix Ratio by Weight: 10:1
Cure Schedule (minimum): 150°C/1 Minutes - 120°C/2 Minutes - 100°C/5 Minutes - 80°C/30 Minutes
Specific Gravity: Part A: 1.19 Part B: 1.02
Pot Life: < 3 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. - TOTAL MASS SHOULD NOT EXCEED 25g -- IF PART A CRYSTALLIZES IN STORAGE, PLACE CONTAINER IN A WARM OVEN UNTIL CRYSTALLIZATION DISAPPEARS. ALLOW TO COOL TO ROOM TEMPERATURE BEFORE MIXING WITH THE PART B HARDENER--

MATERIAL CHARACTERISTICS:

PHYSICAL PROPERTIES:

Color (before cure):	Part A: Clear/Colorless	Part B: Amber
Consistency	Pourable liquid	
Viscosity (23°C): @ 50 rpm	3,720 cPs	
Thixotropic Index:	N/A	
Glass Transition Temp:	102 °C	
Coefficient of Thermal Expansion (CTE):		
Below Tg:	44 x 10 ⁻⁶ in/in°C	
Above Tg:	189 x 10 ⁻⁶ in/in°C	
Shore D Hardness:	85	
Lap Shear @ 23°C:	> 2,000 psi	
Die Shear @ 23°C:	19 Kg	
Degradation Temp:	418 °C	
Weight Loss:		
@ 200°C	0.05 %	
@ 250°C	0.18 %	
@ 300°C	0.58 %	
Operating Temp:		
Continuous:	- 55°C to	250 °C
Intermittent:	- 55°C to	350 °C
Storage Modulus:	469,452 psi	
Ion Content:		
Cl:	38 ppm	NA⁺: 1 ppm
NH₄⁺:	386 ppm	K⁺: 0 ppm
Particle Size:	N/A	

ELECTRICAL AND THERMAL PROPERTIES:

Thermal Conductivity:	N/A
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OPTICAL PROPERTIES @ 23°C:

Spectral Transmission:	>98% @ 860-1600 nm
Index of Refraction:	1.5672 @ 589 nm

The data above is INITIAL only - it may be changed at anytime, for any reason without notice to anyone. It is provided only as a guide for evaluation/consideration.

*These material characteristics are typical properties that are based on a limited number of samples/batches. All properties are based on the cure indicated above. Some properties may vary as manufactured quantities are scaled up to commercialized production levels.