

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 Premium
Date: 09/2009
Rev: I
Material Description: A two component, high temperature epoxy designed for semiconductor, hybrid, fiber optic and medical applications. This product 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: 1.20 Part B: 1.02
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. - 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	Part B: Amber	
Consistency	Pourable liquid		
Viscosity (23°C): @ 50 rpm	3,744 cPs		
Thixotropic Index:	N/A		
Glass Transition Temp:	99 °C		
Coefficient of Thermal Expansion (CTE):			
Below Tg:	54 x 10 ⁻⁶ in/in°C		
Above Tg:	206 x 10 ⁻⁶ in/in°C		
Shore D Hardness:	85		
Lap Shear @ 23°C:	> 2,000 psi		
Die Shear @ 23°C:	> 15 Kg		
Degradation Temp:	407 °C		
Weight Loss:			
@ 200°C	0.6 %		
@ 250°C	0.95 %		
@ 300°C	1.73 %		
Operating Temp:			
Continuous:	- 55°C to	250 °C	
Intermittent:	- 55°C to	350 °C	
Storage Modulus:	516,912 psi		
Ion Content:			
Cl:	147 ppm	NA⁺:	4 ppm
NH₄⁺:	321 ppm	K⁺:	2 ppm
Particle Size:	N/A		

ELECTRICAL AND THERMAL PROPERTIES:	
Thermal Conductivity:	N/A

OPTICAL PROPERTIES @ 23°C:	
Spectral Transmission:	>50% @550 nm >98% @ 800-1000 nm >95% @ 1100-1600 nm
Index of Refraction:	1.5694 @ 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.