Preliminary Product Information Sheet

EPO-TEK® 353ND-LH Ultra

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.

Date:	September 2017
Rev:	II
No. of Components:	Two
Mix Ratio by Weight:	10 : 1
Specific Gravity:	Part A: 1.19 Part B: 1.02
Pot Life:	< 3 Hours
Shelf Life- Bulk:	One year at room temperature

Recommended Cure: 150°C / 1 Hour

Minimum Alternative Cure(s):
May not achieve performance properties listed below
150°C / 1 Minute
120°C / 2 Minutes
100°C / 5 Minutes
80°C / 30 Minutes

NOTES:

- Container(s) should be kept closed when not in use.
- Filled systems should be stirred thoroughly before mixing and prior to use.
- Performance properties (rheology, conductivity, others) of the product may vary from those stated on the data sheet when bi-pak/syringe packaging or post-processing of any kind is performed. Epoxy's warranties shall not apply to any products that have been reprocessed or repackaged from Epoxy's delivered status/container into any other containers of any kind, including but not limited to syringes, bi-paks, cartridges, pouches, tubes, capsules, films or other packages.
- Syringe packaging will impact initial viscosity and effective pot life, potentially beyond stated parameters.
- If product crystalizes in storage, place container in warm oven until crystallization disappears. Please refer to Tech Tip #7 on website.
- *TOTAL MASS SHOULD NOT EXCEED 25 GRAMS*

Product Description: A two component, high temperature epoxy designed for semiconductor, hybrid, fiber optic and medical applications.. This product easily meets halogen-free requirements.

MATERIAL CHARACTERISTICS*:

PHYSICAL PROPERTIES:	**Cure condition:** 150°C / 1 Hour		
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 (Dynamic Cure: 20-200°C/ISO 25 Min; Ramp -10-200°C @20°C/Min)	
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	%	
Suggested Operating Temperature:	< 350	°C (Intermittent)	
Storage Modulus:	469,452	psi	
Ion Content:	Cl^-: 38 ppm	Na^+: 1 ppm	
	NH_4^+: 386 ppm	K^+: 0 ppm	
Particle Size:	N/A		

OPTICAL PROPERTIES @ 23°C:		
Spectral Transmission:	> 98% @ 860-1600	nm
Refractive Index:	1.5672 @ 589	nm

The data above is INITIAL only - it may be changed at any time, 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.

EPOXY TECHNOLOGY, INC.
14 FORTUNE DRIVE, BILLERICA, MA 01821 (978) 667-3805, FAX (978) 663-9782
www.epotek.com