

## **EPO-TEK® 353ND-T5**

Technical Data Sheet For Reference Only

High Temperature Thixotropic Epoxy

Date: June 2022
Rev: X
No. of Components: Two

Mix Ratio by Weight: 10 : 1

Specific Gravity: Part A: 1.13
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 / 5 Minutes 100°C / 10 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.

Part B: 1.02

- Syringe packaging will impact initial viscosity and effective pot life, potentially beyond stated parameters.
- TOTAL MASS SHOULD NOT EXCEED 25 GRAMS

**Product Description:** EPO-TEK® 353ND-T5 is an intermediate viscosity version of EPO-TEK® 353ND and EPO-TEK® 353ND-T. It was designed for high temperature applications in fiber optics, electronics and medical devices.

<u>Typical Properties:</u> Cure condition: 150°C / 1 Hour Different batches, conditions & applications yield differing results.

Data below is not guaranteed. To be used as a guide only, not as a specification. \* denotes test on lot acceptance basis

PHYSICAL PROPERTIES:			
* Color (before cure):	Part A: Tan	Part B: Amber	
* Consistency:	Smooth, slightly	y thixotropic paste	
* Viscosity (23°C) @ 50 rpm:	4,000 - 7,000	cPs	
Thixotropic Index:	2.1		
* Glass Transition Temp:	≥ 90	°C (Dynamic Cure: 20-200°C/ISO 25 Min; Ramp -10-200°C @20°C/Min)	
Coefficient of Thermal Expansion (CTE):			
Below <sup>-</sup>	Γg: 43	x 10 <sup>-6</sup> in/in°C	
Above <sup>3</sup>	Гg: 231	x 10 <sup>-6</sup> in/in°C	
Shore D Hardness:	80		
Lap Shear @ 23°C:	1,953	psi	
Die Shear @ 23°C:	≥ 15	Kg 5,334 psi	
Degradation Temp:	409	°C	
Weight Loss:			
@ 200	°C: 0.53	%	
@ 250	°C: 1.22	%	
@ 300	°C: 2.37	%	
Suggested Operating Temperature:	< 325	°C (Intermittent)	
Storage Modulus:	559,120	psi	
* Particle Size:	≤ 20	microns	

ELECTRICAL AND THERMAL PROPERTIES:				
Thermal Conductivity:	N/A			
Volume Resistivity @ 23°C:	≥ 4 x 10 <sup>12</sup>	Ohm-cm		
Dielectric Constant (1KHz):	3.21			
Dissipation Factor (1KHz):	0.003			

**Epoxies and Adhesives for Demanding Applications™** 

This information is based on data and tests believed to be accurate. Epoxy Technology, Inc. makes no warranties (expressed or implied) as to its accuracy and assumes no liability in connection with any use of this product.

**EPOXY TECHNOLOGY, INC.** 

14 FORTUNE DRIVE, BILLERICA, MA 01821 (978) 667-3805, FAX (978) 663-9782

www.epotek.com



## **EPO-TEK® 353ND-T5**

Technical Data Sheet
For Reference Only
High Temperature Thixotropic Epoxy

## **EPO-TEK® 353ND-T5 Advantages & Suggested Application Notes:**

- Suggested Applications:
  - o Semiconductor, glob top DAM around IC's, using COB or DCA packaging formats
  - Electronics Assembly:
    - Insulating adhesive for bonding stainless steel metals, ceramics and carbon composites used in ink-jetting heads
    - Insulating and plugging wires and feed-through cables of automotive circuits
    - Hard Disk Drive thixotropic staking and termination of Al and Cu coils
    - Adhesive for brushless motors and Cu coil windings
  - Optical:
    - Fiber optic component packaging: bonding fibers, active optics, metals, ceramics and plastic
- Available in alternative viscosities and color. Contact <u>techserv@epotek.com</u> for your best recommendation

www.epotek.com