

## **EPO-TEK® 353ND-T**

**Technical Data Sheet** For Reference Only

High Temperature Thixotropic Epoxy

October 2019 Date:

Rev: ΙX No. of Components: Two

Mix Ratio by Weight: 10:1

**Specific Gravity:** Part A: 1.12

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

## 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

- 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-T is a two component, highly thixotropic epoxy with non-flowing properties and high temperature resistance.

Part B: 1.02

Typical Properties: 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

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PHYSICAL PROPERTIES:			
* Color (before cure):	Part	A: Tan Part	B: Amber
* Consistency:	Smo	oth thixotropic p	aste
* Viscosity (23°C) @ 20 rpm:		9,000 - 15,000	cPs
Thixotropic Index:		3.8	
* 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):		
	ow Tg:	43	x 10 <sup>-6</sup> in/in°C
	ve Tg:	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
Ion Content:	CI <sup>-</sup> :	471 ppm	Na <sup>+</sup> : 143 ppm
	NH <sub>4</sub> +		K+: 15 ppm
* Particle Size:		99% ≤ 20	microns

<b>ELECTRICAL AND THERMAL PROPERTIES:</b>		
Thermal Conductivity:	N/A	
Volume Resistivity @ 23°C:	$\geq 4 \times 10^{12}$	Ohm-cm
Dielectric Constant (1KHz):	3.21	
Dissipation Factor (1KHz):	0.003	



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

- Suitable for fiber optic and circuit assembly applications.
- Recommended for bonding metals, glass, ceramics and many types of plastic.
- High temperature adhesive for hybrids and medical devices; it can resist within the 300°C range for long periods of time.
- Circuit assembly applications; staking SMD's to PCB, bonding ferrite cores together in copper coil windings, inductor coils and power devices; suitable for COB glob top DAM material.
- Alternative product versions available with distinct viscosity ranges contact Technical Services at techserv@epotek.com for best recommendation.
- Can be applied by screen printing, spatula, hand held or automatic dispensing equipment.
- Amber color change when properly cured for easy visual ID and inspection.