

Date: February 2022
Rev: X
No. of Components: Two
Mix Ratio by Weight: 10 : 1
Specific Gravity: Part A: 1.20 Part B: 0.99
Pot Life: 8 Hours
Shelf Life- Bulk: One year at room temperature
Shelf Life- Syringe: One year at -40°C

Recommended Cure: 150°C / 1 Hour

Minimum Alternative Cure(s):
May not achieve performance properties listed below
 90°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.

Product Description: EPO-TEK® 383ND is a two component, high temperature, electrically and thermally insulating epoxy. Designed as a longer pot life version of EPO-TEK® 353ND.

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

PHYSICAL PROPERTIES:			
* Color (before cure):	Part A: Clear	Part B: Slightly yellow	
* Consistency:	Pourable liquid		
* Viscosity (23°C) @ 50 rpm:	3,500 - 6,000	cPs	
Thixotropic Index:	N/A		
* Glass Transition Temp:	≥ 100	°C (Dynamic Cure: 20-200°C/ISO 25 Min; Ramp -10-200°C @20°C/Min)	
Coefficient of Thermal Expansion (CTE):			
	Below Tg:	34	x 10 ⁻⁶ in/in°C
	Above Tg:	129	x 10 ⁻⁶ in/in°C
Shore D Hardness:	88		
Lap Shear @ 23°C:	> 2,000	psi	
Die Shear @ 23°C:	≥ 20	Kg	7,112 psi
Degradation Temp:	415	°C	
Weight Loss:			
	@ 200°C:	0.28	%
	@ 250°C:	0.42	%
	@ 300°C:	0.86	%
Suggested Operating Temperature:	< 350 °C (Intermittent)		
Storage Modulus:	369,039	psi	
* Particle Size:	≤ 20	microns	

ELECTRICAL AND THERMAL PROPERTIES:			
Thermal Conductivity:	N/A		
Volume Resistivity @ 23°C:	≥ 3 x 10 ¹³	Ohm-cm	
Dielectric Constant (1KHz):	2.59		
Dissipation Factor (1KHz):	0.008		

OPTICAL PROPERTIES @ 23°C:			
Spectral Transmission:	≥ 90% @ 520-1660	nm	
Refractive Index:	1.5715 @ 589	nm	

Epoxyes and Adhesives for Demanding Applications™

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EPOXY TECHNOLOGY, INC.

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www.epotek.com

EPO-TEK® 383ND Advantages & Suggested Application Notes:

- Built in color change from clear to dark amber when cured properly.
- Long 8 hour pot life allows for use over an entire shift.
- Capable of high performance in fiber optic applications; designed to meet Telecordia 1221.
- Strong transmission in the near IR; optimal for sealing fiber to ferrules, transmitting light in the optical pathways from 800-1,500 nm.
- Commonly used for fiber component packaging such as alignment of optics, environmental sealing of opto-electronic packages and V-groove arrays.
- Used for pot fiber optic bundles into ferrules for light guides and endoscopes.
- Used as dielectric layer in fabrication of capacitors and laminating PZT piezoelectrics such as those found in ink-jetting devices.
- Structural grade epoxy found in hard disk drives. Applications include anti-disk and voice coil sealing.
- Low viscosity allows for wicking and capillary dispensing.

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