



Manufacturer:
Epoxy Technology

Product Name:
EPO-TEK® 383ND High Temperature Epoxy, Heat Cure (4g)

Manufacturer Part Number:
ET383ND-4G

▶ [Click here for more details on the EPO-TEK® 383ND High Temperature Epoxy, Heat Cure \(4g\)](#)



EPO-TEK® 383ND
Technical Data Sheet
For Reference Only
High Temperature Epoxy

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):
90°C / 30 Minutes
May not achieve performance properties listed below

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™

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.

Contact the professionals at Fiber Optic Center for a quote or to get more details.

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Product specifications and data are subject to change without notice.



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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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