

Date: Oct 2014 **Rev:** V
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

Recommended Cure: 150°C / 1 Hour

Minimum Alternative Cure(s):
may not achieve performance properties 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) may vary from those stated below when syringe packaging and/or post-processing is required.
- 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 *denotes test on lot acceptance basis Data below is not guaranteed To be used as a guide only, not as a specification. Different batches, conditions & applications yield differing results.*

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 6,800 psi
Degradation Temp:	415 °C
Weight Loss:	
@ 200°C	0.28 %
@ 250°C	0.42 %
@ 300°C	0.86 %
OperatingTemp:	
: Continuous:	- 55°C to 250 °C
Intermittent:	- 55°C to 350 °C
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% @ 520-1,660 nm
Index of Refraction:	1.5715 @ 589 nm

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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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