

EPO-TEK® 353ND

Epoxy; Epoxide
Epoxy Technology Inc.

Message:
EPO-TEK® 353ND is a two component, high temperature epoxy designed for semiconductor, hybrid, fiber optic, and medical applications. It is one of the most popular EPO-TEK brand products, and is known throughout the world for its performance and reliability. Also available in a single component frozen syringe.

General Information		
Features	Autoclave Sterilizable	
	Biocompatible	
	Ethylene Oxide Sterilizable	
	Good Adhesion	
	High Heat Resistance	
	Low to No Outgassing	
	Radiation Sterilizable	
Uses	Adhesives	
	Bonding	
	Electrical/Electronic Applications	
	Impregnation Applications	
	Medical/Healthcare Applications	
	Seals	
Agency Ratings	ASTM E 595	
	EC 1907/2006 (REACH)	
	EU 2003/11/EC	
	EU 2006/122/EC	
	ISO 10993	
	USP Class VI	
RoHS Compliance	RoHS Compliant	
Forms	Liquid	
Processing Method	Potting	
Physical	Nominal Value	Unit
Ion Type		
Cl-	329	ppm
K+	5	ppm
NH4+	409	ppm
Degradation Temperature	412	°C
Die Shear Strength - > 15 kg (23°C)	35.2	MPa

Operating Temperature		
Continuous	-55 to 250	°C
Intermittent	-55 to 350	°C
Storage Modulus	3.56	GPa
Weight Loss on Heating		
200°C	0.22	%
250°C	0.39	%
300°C	0.87	%
Thermal	Nominal Value	Unit
Glass Transition Temperature ¹	> 90.0	°C
CLTE - Flow		
-- ²	5.4E-5	cm/cm/°C
-- ³	2.1E-4	cm/cm/°C
Optical	Nominal Value	Unit
Refractive Index ⁴	1.569	
Transmittance		
550 nm	> 50.0	%
800 to 1000 nm	> 98.0	%
1100 to 1600 nm	> 95.0	%
Thermoset	Nominal Value	Unit
Thermoset Components		
Part A	Mix Ratio by Weight: 10	
Part B	Mix Ratio by Weight: 1.0	
Shelf Life (23°C)	52	wk
Uncured Properties	Nominal Value	Unit
Color		
-- ⁵	Amber	
-- ⁶	Clear/Transparent	
Density		
Part B	1.02	g/cm ³
Part A	1.20	g/cm ³
Viscosity ⁷ (23°C)	3.0 to 5.0	Pa · s
Curing Time (150°C)	1.0	hr
Pot Life	< 180	min
Cured Properties	Nominal Value	Unit
Shore Hardness (Shore D)	85	
Lap Shear Strength (23°C)	> 13.8	MPa
Relative Permittivity (1 kHz)	3.17	
Volume Resistivity (23°C)	> 1.8E+13	ohms · cm
Dissipation Factor (1 kHz)	5.0E-3	
NOTE		

1.	Dynamic Cure 20-200°C/ISO 25 Min; Ramp -10-200°C @ 20°C/Min
2.	Below Tg
3.	Above Tg
4.	589 nm
5.	Part B
6.	Part A
7.	50 rpm

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