EPOXY TECHNOLOGY

DATA SHEET

EPO-TEK

353ND-4

Higher Tg Version of
EPO-TEK 353ND epoxy

Rev II
6/01

TYPICAL PROPERTIES

(To be used as a guideline only)

NUMBER OF COMPONENTS	Two
MIXING RATIO	PARTS BY WEIGHT
Part "A"	10
Part "B" (hardener)	1

Keep containers closed when not in use.
Mixed volume should not exceed 25 grams.

CURE SCHEDULE (minimum)	
150°C	15 minutes
120°C	30 minutes
100°C	90 minutes
80°C	3 hours

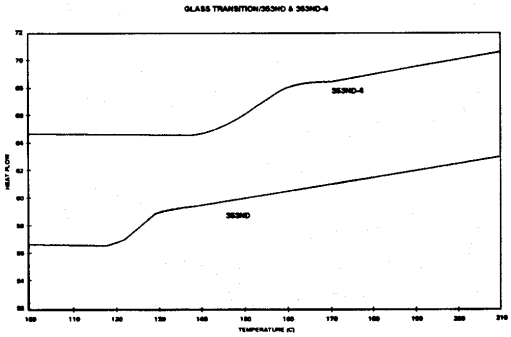
PHYSICAL PROPERTIES	
Color	Amber
Consistency	Viscous liquid
Viscosity (mixed)	
@ 10 rpm/23°C	25,000 - 35,000 cPs
Specific Gravity	
Part "A"	1.2
Part "B"	1.02
Glass Transition Temp. (Tg)	
cured @ 150°C/1 hour	155°C
Coefficient of Thermal Expansion (CTE)	
Below Tg	48 x 10^{-6} in/in/°C
Above Tg	186 x 10^{-6} in/in/°C
Operating Temperature Range	
Continuous	200°C
Intermittent	300°C
Degradation Temp. (TGA)	395°C
Outgas @ 300°C	0.75%
Shore D Hardness	89
Lap Shear Strength @ 25°C (Al to Al)	1,500 psi
Die Shear Strength	
@ 20°C	> 3400 psi
@ 240°C	> 390 psi
Tensile Strength	10,000 psi
Storage Modulus	550,000 psi
Moisture Resistance 1 hr/100°C	2.06%

OPTICAL PROPERTIES	
Index of Refraction	1.5922
Spectral Transmission (0.001")	
900 nm	97% transmittance
800 nm	96% transmittance
700 nm	88% transmittance

ELECTRICAL/THERMAL PROPERTIES	
Volume Resistivity	2 x 10^{14} ohm-cm
Thermal Conductivity	0.34 W/m°K
POT LIFE	4 hours

SHELF LIFE
One year when stored at room temperature.
REFRIGERATION IS NOT REQUIRED

NONTOXIC - complies with USP Class VI
biocompatibility standards



EPO-TEK 353ND-4 is a two component, 100% solids, heat curing epoxy designed for high temperature applications. Although EPO-TEK 353ND-4 will perform continuously at 200°C, it will also endure +300 - 400°C for several minutes. EPO-TEK 353ND-4 has excellent resistance to many types of solvents and chemicals and is ideal for bonding fiber optics, metals, glass, ceramics and many plastics. This epoxy is also suitable for ETO and autoclave sterilization.

Some unique features of EPO-TEK 353ND-4 are: long pot life, good handling characteristics, low dermatetic response, excellent wicking into fiber optic bundles, and a color change from amber to red upon cure. It conveniently changes color during cure. The EPO-TEK 353ND-4 is a high Tg version of the EPO-TEK 353ND.

EPO-TEK 353ND-4 is recommended to be used only in thin or thick film applications. For other applications where extra thick sections are needed, it is recommended to gel the system at room temperature or slightly above room temperature followed by a short post cure at elevated temperature.

EPO-TEK 353ND-4 can be applied by brush, dipping, pouring or mechanical dispensing techniques.

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Änderungen vorbehalten / Stand : 29.07.2004

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