

TYPICAL PROPERTIES

(To be used as a guideline only)

NUMBER OF COMPONENTS Two

MIXING RATIO	PARTS BY WEIGHT
Part "A"	100
Part "B" (hardener)	6

 Keep containers closed when not in use.

CURE SCHEDULE (Bond line temperature-guide)	
120°C	3 hours
*150°C	1 hour
180°C	30 minutes

 *Recommended cure for optimum Tg

OPTICAL PROPERTIES

 Index of Refraction (sodium D line-589.3nm) .. 1.4939
 Spectral Transmission (quartz 0.0005")
 93% - 480/900 nanometers
 90% - 385/900 nanometers

Color:	Before Cure	After Cure
Thin Film:	Clear	Clear
Thick Film:	slight yellow	slight yellow

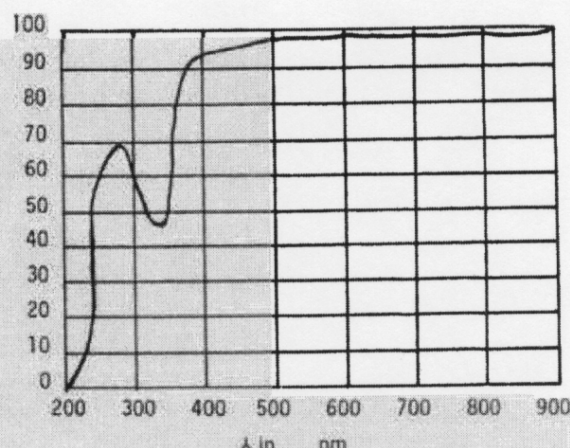
PHYSICAL PROPERTIES

Specific Gravity (A & B mixed)	1.1
Part "A"	1.18
Part "B"	1.23
Viscosity (mixed)	
@ 100 rpm/23°C	300 - 600 cPs
Hardness, Shore D	80
Glass Transition Temp. (Tg)	
cured @ 150°C/1 hour	> 100°C
Coefficient of Thermal Expansion	
Below Tg: 70 x 10 ⁻⁶ in/in/°C	
Above Tg: 169 x 10 ⁻⁶ in/in/°C	
Operating Temperature Range	
150°C Continuous 300°C Intermittent	
TGA (degradation temperature)	385°C
Lap Shear Strength	800 psi
(ASTM D1002-34/Al:Al @ 25°C)	
Cation Anion Analysis (parts/million)	
Cl ⁻ <10 Na ⁺ <10	
NH ₄ ⁺ <10 K ⁺ <10	
Volume Resistivity	10 ¹³ ohm-cm

POT LIFE 4 days

SHELF LIFE 1 year

REFRIGERATION NOT REQUIRED



INSTRUMENT: PE 320	REFERENCE: Quartz
SOURCE: W/Deut.	SAMPLE: .0015" between
BANDPASS: Variable	two quartz plates

EPO-TEK 314 is a two component, 100% solids, heat curing epoxy exhibiting an index of refraction of 1.4939. It was designed for high temperature applications in optical or fiber optic assemblies where a low refractive index is required.

EPO-TEK 314 is a low viscosity, optically transparent system that can be used for bonding or coating glass, quartz, metals and most plastics. EPO-TEK 314 has outstanding high temperature properties, can be subjected to 150°C continuous or 300°C intermittently. The degradation temperature is in excess of 350°C and may be suitable for products that will be subjected to autoclave conditions such as medical instruments.

The low viscosity gives good wetting characteristics, is easy to handle and the four day pot life makes this epoxy ideal for production use. EPO-TEK 314 can be applied by dipping, spinning, brushing or dispensing methods.

Moisture resistance is excellent; after 48 hours (30°C) in saline solution the weight gain is 0.22%; in fresh water 0.18%. When a cured sample (180°C/1 Hr.) is subjected to 250°C for 1 hour the weight loss is 0.02%.

EPO-TEK 314 does not require refrigeration, in storage or shipping, and has a shelf life of one year at room temperature.

Complete evaluation or testing of the product for specific applications is recommended.

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Sicherheitsrelevante Daten können dem Sicherheitsdatenblatt entnommen werden.

Änderungen vorbehalten / Stand : 29.07.2004

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