

EPO-TEK® 301

Spectrally Transparent Epoxy

TYPICAL PROPERTIES

(To be used as a guideline only)

NUMBER OF COMPONENTS Two

MIXING RATIO PARTS BY WEIGHT
Part "A" 20
Part "B" (hardener) 5
Mixed volume should not exceed 25 grams.

CURE SCHEDULE (minimum)
85°C 1 hour
Room Temperature Overnight

PHYSICAL PROPERTIES

Color Clear
Consistency Low viscosity liquid
Viscosity (mixed)
@ 100 rpm/23°C 100 - 200 cPs
Specific Gravity
Part "A" 1.15
Part "B" 0.87
Glass Transition Temp. (T_g)
cured @ 65°C/2 hours > 65°C
Coefficient of Thermal Expansion (CTE)
Below T_g 50×10^{-4} in/in/°C
Above T_g 125×10^{-4} in/in/°C
Operating Temp. Range -55 - +125°C continuous
Degradation Temp. (TGA) 341°C
Outgas @ 200°C 0.27%
@ 300°C 0.81%
Shore D Hardness 81
Lap Shear Strength (Al to Al) 1,700 psi
Storage Modulus 327,463 psi

OPTICAL PROPERTIES (0.001")

Index of Refraction 1.539
@ Sodium D Line 589 nm
> 97% Transmission 320 - 900nm
> 80% Transmission 910 - 2.6 μ

ELECTRICAL PROPERTIES

Volume Resistivity 5×10^{13} ohm-cm
Dielectric Strength 440 V/mil
Dielectric Constant (1 MHz) 4.1
Dissipation Factor (1 MHz) 0.02

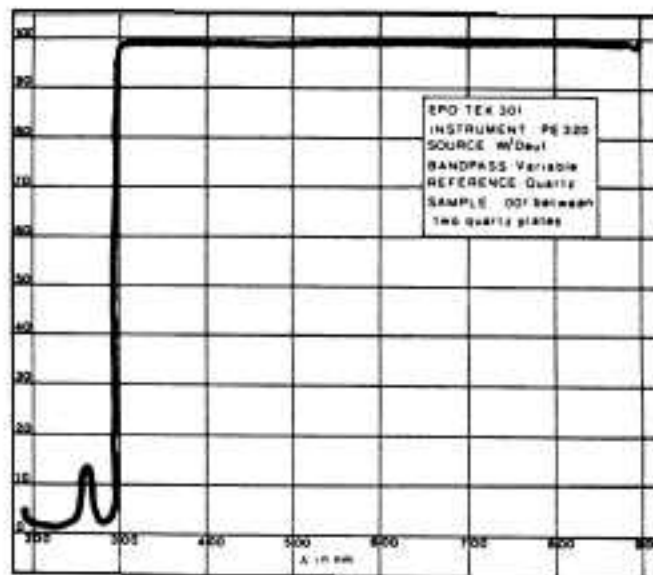
POT LIFE

100 gram sample 30 min.
25 gram sample 50 min.

SHELF LIFE

One year when stored at room temperature.
Keep containers closed when not in use.

REFRIGERATION NOT REQUIRED



EPO-TEK 301 is a two component, room temperature curing, epoxy adhesive featuring very low viscosity, good pot life, good handling characteristics and excellent optical properties.

Although designed primarily for optical filters, EPO-TEK 301 has found wide usage in many instrumentation applications. It is also recommended for bonding glass and plastic fiber optics.

EPO-TEK 301 has good adhesion to many different types of substrates including glass, quartz, metals and most plastics.

NONTOXIC - complies with USP Class VI Biocompatibility standards