

**TYPICAL PROPERTIES**

(To be used as a guideline only)

NUMBER OF COMPONENTS ..... Two

MIXING RATIO                                      PARTS BY WEIGHT  
Part "A" ..... 10 gms.  
Part "B" (hardener) ..... 4.5 gms.  
(Keep containers closed when not in use)

CURE SCHEDULE (minimum)  
65°C ..... 90 minutes  
Room Temperature ..... Overnight

PHYSICAL PROPERTIES (Typical properties are based on a 65°C/3 hour cure)

Color (before and after cure) ..... Clear  
Consistency ..... Pourable liquid  
Viscosity (mixed)  
@ 100 rpm/23°C ..... 800 - 1,600 cPs  
Specific Gravity  
Part "A" ..... 1.20  
Part "B" ..... 0.92

Glass Transition Temp. (Tg)  
cured @ 65°C/3 hours ..... > 65°C

Coefficient of Thermal Expansion (CTE)  
Below Tg .....  $60 \times 10^{-6}$  in/in/°C  
Above Tg .....  $190 \times 10^{-6}$  in/in/°C  
Operating Temp. Range: -55°C to +125°C Continuous  
Degradation Temperature ..... 342°C  
Outgas @ 150°C ..... 0.35%  
@ 250°C ..... 0.77%  
@ 300°C ..... 1.22%

Shore D Hardness ..... 82  
Lap Shear Strength (Al to Al) ..... 1,300 psi  
Storage Modulus ..... 251,500 psi  
Water Absorption (24 hours immersion @ 23°C)  
Fresh Water ..... 0.075% gain  
Salt Water ..... 0.095% gain

OPTICAL PROPERTIES  
Index of Refraction ..... 1.556  
Spectral Transmission: (0.001")  
> 96% ..... 375 to 900 nm

POT LIFE ..... 1 1/2 to 2 hours

SHELF LIFE  
One year when stored at room temperature.



EPO-TEK 302-3M is a two component, 100% solids epoxy that may be cured at room or elevated temperatures. EPO-TEK 302-3M exhibits excellent optical properties and is particularly effective against moisture and water.

EPO-TEK 302-3M, low viscosity, clear epoxy is well suited for potting applications. When cured at room temperature there is very little shrinkage because of the low exothermal characteristic of the material. In addition to potting applications, the EPO-TEK 302-3M is recommended for bonding optical fibers into connectors, lens and prism bonding and pigtailling to LED's where hardness and moisture resistance are of importance. It can be used as an environmental seal for opto-electronic packages and meets gross helium leak testing. The 302-3M has the lowest water absorption properties of any EPO-TEK 300 series epoxy currently available and is autoclavable.

EPO-TEK 302-3M should be mixed thoroughly and applied to clean surfaces to be bonded, sealed or coated. All surfaces should be free of dirt, grease or mold release. In most cases a simple solvent wipe or degreasing operation is adequate.

Based on outgassing test results by NASA, EPO-TEK 302-3M is approved for space flight programs

NASA APPROVED •

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