

Date: November 2019
Rev: IV
No. of Components: Two
Mix Ratio by Weight: 1 : 1
Specific Gravity: Part A: 1.21 Part B: 1.22
Pot Life: 18 Hours
Shelf Life- Bulk: One year at room temperature

Recommended Cure: 150°C / 1 Hour

NOTES:

- Container(s) should be kept closed when not in use.
- Filled systems should be stirred thoroughly before mixing and prior to use.
- Performance properties (rheology, conductivity, others) of the product may vary from those stated on the data sheet when bi-pak/syringe packaging or post-processing of any kind is performed. Epoxy's warranties shall not apply to any products that have been reprocessed or repackaged from Epoxy's delivered status/container into any other containers of any kind, including but not limited to syringes, bi-paks, cartridges, pouches, tubes, capsules, films or other packages.

Product Description: EPO-TEK® CF6-2 is a two component, high temperature and high Tg epoxy designed for fiber optic packaging.

Typical Properties: Cure condition: 150°C / 1 Hour Different batches, conditions & applications yield differing results.

Data below is not guaranteed. To be used as a guide only, not as a specification. * denotes test on lot acceptance basis

PHYSICAL PROPERTIES:			
* Color (before cure):	Part A: Clear/Colorless	Part B: Amber	
* Consistency:	Pourable liquid		
* Viscosity (23°C) @ 100 rpm:	800 - 1,200	cPs	
Thixotropic Index:	N/A		
* Glass Transition Temp:	≥ 110	°C (Dynamic Cure: 20-200°C/ISO 25 Min; Ramp -10-200°C @20°C/Min)	
Coefficient of Thermal Expansion (CTE):			
	Below Tg:	69	x 10 ⁻⁶ in/in°C
	Above Tg:	175	x 10 ⁻⁶ in/in°C
Shore D Hardness:	84		
Lap Shear @ 23°C:	1,144	psi	
Die Shear @ 23°C:	≥ 15	Kg	5,334 psi
Degradation Temp:	360 °C		
Weight Loss:			
	@ 250°C:	0.13	%
	@ 300°C:	0.69	%
Suggested Operating Temperature:	< 300 °C (Intermittent)		
Storage Modulus:	287,289	psi	
Particle Size:	N/A		

ELECTRICAL AND THERMAL PROPERTIES:			
Thermal Conductivity:	N/A		
Volume Resistivity @ 23°C:	≥ 1.8 x 10 ¹³	Ohm-cm	
Dielectric Constant (1KHz):	2.99		
Dissipation Factor (1KHz):	0.005		

OPTICAL PROPERTIES @ 23°C:			
Spectral Transmission:	> 97% @ 700-2000	nm	
Refractive Index:	1.5336 @ 589	nm	

Epoxyes and Adhesives for Demanding Applications™

This information is based on data and tests believed to be accurate. Epoxy Technology, Inc. makes no warranties (expressed or implied) as to its accuracy and assumes no liability in connection with any use of this product.

EPOXY TECHNOLOGY, INC.

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EPO-TEK® CF6-2 Advantages & Suggested Application Notes:

- The low viscosity nature allows for wicking and impregnating into fiber optic bundles, commonly found in medical or sensor industries.
- Low outgassing nature makes it ideal for high temperature fiber optic environments.
- Suggested Applications:
 - Sensor Devices: down hole fiber sensors for petro-chemical industries. High power laser light beam delivery.
 - Optics: Spectral Transmission in the VIS and IR region > 600 nm range.
- Amber color change upon cure allows for visual ID inspection of cure.
- Convenient 1:1 mix ratio allows for static mixing, or specialty packaging in double-barrel syringes.

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