EPO-TEK® 377H

Technical Data Sheet
For Reference Only
Graphite-filled, High Temperature Epoxy

Date:	February 2021	**Recommended Cure: 150°C / 1 Hour**
Rev:	VIII	
No. of Components:	Two	
Mix Ratio by Weight:	1 : 1	
Specific Gravity:	Part A: 1.29 Part B: 1.33	
Pot Life:	24 Hours	
Shelf Life- Bulk:	One year at room temperature	

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® 377H is a two component, high Tg, graphite filled epoxy designed for ESD/EMI shielding of semiconductor devices and electronics. It can be used in many electronic industries like consumer, military, medical, and optical/OEM /fiber optics. It is an electrically conductive version of EPO-TEK® 377.

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: Black	Part B: Black
* Consistency:	Pourable liquid	
* Viscosity (23°C) @ 100 rpm:	500 - 1,000	cPs
Thixotropic Index:	N/A	
* Glass Transition Temp:	≥ 95	°C (Dynamic Cure: 20-200°C/ISO 25 Min; Ramp -10-200°C @20°C/Min)
Coefficient of Thermal Expansion (CTE):		
Below Tg:	56	x 10^{-6} in/in°C
Above Tg:	200	x 10^{-6} in/in°C
Shore D Hardness:	80	
Lap Shear @ 23°C:	> 2,000	psi
Die Shear @ 23°C:	≥ 10	Kg 3,556 psi
Degradation Temp:	345	°C
Weight Loss:		
@ 200°C:	0.09	%
@ 250°C:	0.66	%
@ 300°C:	0.78	%
Suggested Operating Temperature:	< 275	°C (Intermittent)
Storage Modulus:	416,850	psi
* Particle Size:	≤ 40	microns

ELECTRICAL AND THERMAL PROPERTIES:		
Thermal Conductivity:	0.44	W/mK
Volume Resistivity @ 23°C:	≥ 400	Ohm-cm
Dielectric Constant (1KHz):	N/A	
Dissipation Factor (1KHz):	N/A	

OPTICAL PROPERTIES @ 23°C:		
Spectral Transmission:	< 0.1% @ 400-1500	nm
Refractive Index:	N/A	

EPOXY TECHNOLOGY, INC.
14 FORTUNE DRIVE, BILLERICA, MA 01821 (978) 667-3805, FAX (978) 663-9782
www.epotek.com
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EPO-TEK® 377H Advantages & Suggested Application Notes:

- Low viscosity - ideal for commercial and micro-dispensing applications.
- Suggested Applications:
  - Opto-electronics: Adhering IR filter windows to cap of TO-can; opaque epoxy resin in IR and VIS range; near hermetic sealing of windows and packages.
  - Hybrid Microelectronics: adhesion to kovar, stainless steel, ceramics, glasses, lids or substrates in Rf/Microwave devices.
- Convenient 1:1 mix ratio allows for static mixing, or specialty packaging in double-barrel syringes

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