

Product Information Sheet

MATERIAL ID: **EPO-TEK® 730-110 Black**

Date: May 2013

Rev: III

Material Description: A two component, room temperature curing, general and structural grade epoxy. It can be used for adhesive, sealing, and encapsulating applications in medical, x-ray device, filtration, opto-electronics and PCB industries. It is a black version of EPO-TEK® 730-110.

Number of Components: Two

Mix Ratio by Weight: 1 : 1

Recommended Cure: 80°C/2 Hours

Specific Gravity: Part A: 1.17 Part B: 0.97

Pot Life: 1 Hour

Shelf Life: One year at room temperature

Minimum Alternative Cure(s): <i>may not achieve performance properties below:</i> 100°C / 30 Minutes 23°C / 24 Hours

NOTE: Container(s) should be kept closed when not in use. Filled systems should be stirred thoroughly before mixing and prior to use.

MATERIAL CHARACTERISTICS: To be used as a guide only, not as a specification. Data below is not guaranteed. Different batches, conditions and applications yield differing results; Cure condition: varies as required

* denotes test on lot acceptance basis

PHYSICAL PROPERTIES:

* Color (before cure):	Part A: Black Part B: Clear Yellow
* Consistency	Pourable liquid
* Viscosity (23°C): @ 20 rpm	10,000 - 14,000 cPs
Thixotropic Index:	N/A
* Glass Transition Temp:	≥ 50 °C (Dynamic Cure: 20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min)
Coefficient of Thermal Expansion (CTE):	
Below Tg:	61 x 10 ⁻⁶ in/in°C
Above Tg:	192 x 10 ⁻⁶ in/in°C
Shore D Hardness:	76
Lap Shear @ 23°C:	> 2,000 psi
Die Shear @ 23°C:	≥ 10 Kg 3,400 psi
Degradation Temp:	343 °C
Weight Loss: @ 200°C	1.01 %
Operating Temp:	
Continuous:	- 55°C to 150°C
Intermittent:	- 55°C to 250°C
Storage Modulus:	129,916 psi
Particle Size:	N/A

ELECTRICAL AND THERMAL PROPERTIES:

Thermal Conductivity:	N/A
Volume Resistivity @ 23°C:	≥ 4 x 10 ¹³ Ohm-cm
Dielectric Constant (1KHz):	3.24
Dissipation Factor (1KHz):	0.009

OPTICAL PROPERTIES @ 23°C:

Spectral Transmission:	< 2% @ 300 - 960 nm < 5% @ 980 - 1260 nm
Index of Refraction:	N/A

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