

EPO-TEK® 730-110 Technical Data Sheet For Reference Only General Purpose Epoxy

Date: February 2024 Rev: VII No. of Components: Two Mix Ratio by Weight: 1:1 **Specific Gravity:** Part A: 1.17 Part B: 0.97 Pot Life: 1 Hour Shelf Life- Bulk: One year at room temperature

Recommended Cure: 80°C / 2 Hours

Minimum Alternative Cure(s): May not achieve performance properties listed below 23°C / 24 Hours

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.

• Syringe packaging will impact initial viscosity and effective pot life, potentially beyond stated parameters.

Product Description: EPO-TEK® 730-110 is a two component, room temperature-curing, thermally and electrically insulating epoxy. It can be used for adhesive, sealing, potting or encapsulation applications found in semiconductor, electronics, and optical devices.

Typical Properties: Cure condition: Varies as required 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/C	olorless Part B: Clear yellow	
* Consistency:	Pourable liquid		
* Viscosity (23°C) @ 20 rpm:	8,000-12,000	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		x 10 ⁻⁶ in/in°C	
Shore D Hardness:	76		
Lap Shear @ 23°C:	> 2,000	psi	
Die Shear @ 23°C:	≥ 10	Kg 3,556 psi	
Degradation Temp:	343	°C	
Weight Loss:			
@ 200°C		%	
Suggested Operating Temperature:	< 250	°C (Intermittent)	
Storage Modulus:	129,916	psi	
* Particle Size:	N/A		
ELECTRICAL AND THERMAL PROPERTIES:			
Thermal Conductivity:	N/A		
Volume Resistivity @ 23°C:	≥ 4 x 10 ¹²	Ohm-cm	
Dielectric Constant (1KHz):	3.10		
Dissipation Factor (1KHz):	0.008		
OPTICAL PROPERTIES @ 23°C:			

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Spectral Transmission:	≥ 95% @ 480-1,640	nm
Refractive Index (uncured):	1.5275 @ 589	nm

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EPO-TEK[®] 730-110 Advantages & Suggested Application Notes:

- Excellent "all-purpose adhesive". Many uses as a general purpose bonding solution. Commonly used in outdoor applications, automotive, industrial, and metal working applications.
- Designed as a medium viscosity flowing liquid but is also available as a thick paste (EPO-TEK[®] 730)
- Often applied by hand using a spatula or blade, by dispensing equipment, or directly from a bi-pack
- 1:1 mix ratio allows for easy mixing by volume or weight
- Adheres well to most surfaces including metal, foils, glass, ceramic, and many engineering plastics
- Versatile cure options ranging from 23°C (room temperature) to 80°C
 - For an ISO 10993 biocompatible version, see EPO-TEK[®] MED-730-110.