



Product Information Sheet

EPO-TEK® P10

Date:	September 2017	Recommended Cure: Pre-Bake: 80°C/30 Minutes (maximum) +
Rev:	II	Cure: 150°C/1 Hour (with or without vacuum)+
No. of Components:	Single	Post Cure: 285°C/90 Minutes
Mix Ratio by Weight:	N/A	
Specific Gravity:	2.49	
Pot Life:	N/A	Dry Time: 7 Days
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: A single component, modified polyimide, high-temperature grade, silver-filled, electrically and thermally conductive adhesive designed for semiconductor die attach and hybrid microelectronic packaging.

Typical Properties: Cure condition: Pre-Bake: 80°C/30 Minutes (maximum) - Cure: 150°C/1 Hour (with or without vacuum) – Post-Cure: 285°C/90 Minutes 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):	Silver		
* Consistency:	Smooth thixotropic paste		
* Viscosity (23°C) @ 20 rpm:	9,000 - 15,000	cPs	
Thixotropic Index:	3.6		
* Glass Transition Temp:	≥ 100	°C (Ramp 40°C/Min to 300°C)	
Coefficient of Thermal Expansion (CTE):			
	Below Tg:	33	x 10 ⁻⁶ in/in°C
	Above Tg:	119	x 10 ⁻⁶ in/in°C
Shore D Hardness:	73		
Lap Shear @ 23°C:	N/A		
Die Shear @ 23°C:	≥ 5	Kg	1,778 psi
Degradation Temp:	331 °C		
Weight Loss:			
	@ 200°C:	< 0.05	%
	@ 250°C:	< 0.05	%
	@ 300°C:	0.09	%
Suggested Operating Temperature:	< 300 °C (Intermittent)		
Storage Modulus:	407,450 psi		
Ion Content:	Cl ⁻ :	224 ppm	Na ⁺ : 75 ppm
	NH ₄ ⁺ :	28 ppm	K ⁺ : 37 ppm
* Particle Size:	≤ 20 microns		

ELECTRICAL AND THERMAL PROPERTIES:		
Thermal Conductivity:	7.9	W/mK
* Volume Resistivity @ 23°C:	≤ 0.005	Ohm-cm

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.