



Product Information Sheet

EPO-TEK® EK1000-1MP

Date: December 2019 **Recommended Cure:** 200°C / 1 Hour
Rev: V
No. of Components: Single
Mix Ratio by Weight: N/A
Specific Gravity: 3.76 **Dry Time:** < 7 days
Pot Life: 2 Weeks
Shelf Life- Bulk: One year at -40°C

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, electrically conductive epoxy with exceptionally high thermal conductivity making it perfect for power and thermal management. It is a longer dry-time version of EPO-TEK® EK1000-MP and is designed for applications requiring long work times including hybrid die and component attach. Complies with the requirements of MIL-STD 883/Test Method 5011.

Typical Properties: Cure condition: 200°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):	Silver		
* Consistency:	Smooth paste		
* Viscosity (23°C) @ 10 rpm:	13,000-21,000	cPs	
Thixotropic Index:	3.8		
* Glass Transition Temp:	≥ 80	°C	(Dynamic Cure: 20-300°C/ISO 25 Min; Ramp -10-200°C @20°C/Min)
Coefficient of Thermal Expansion (CTE):			
Below Tg:	41	x 10 ⁻⁶	in/in°C
Above Tg:	162	x 10 ⁻⁶	in/in°C
Shore D Hardness:	65		
Die Shear @ 23°C:	≥ 10	Kg	3,556 psi
Degradation Temp:	372	°C	
Weight Loss:			
@ 200°C:	0.04	%	
@ 250°C:	0.15	%	
@ 300°C:	0.50	%	
Suggested Operating Temperature:	< 300	°C	(Intermittent)
Storage Modulus:	609,915	psi	
Ion Content:	Cl:	< 200 ppm	Na+: < 50 ppm
	NH ₄ ⁺ :	8 ppm	K+: < 50 ppm
* Particle Size:	≤ 45	microns	

ELECTRICAL AND THERMAL PROPERTIES:		
Thermal Conductivity:	22.7	W/mK
Volume Resistivity @ 23°C (150°C/1 Hour + 200°C/1 Hour):	≤ 0.00007	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.

EPOXY TECHNOLOGY, INC.
14 FORTUNE DRIVE, BILLERICA, MA 01821 (978) 667-3805, FAX (978) 663-9782
www.epotek.com