



Product Information Sheet

EPO-TEK® T6116-R3

Date: September 2017
Rev: III
No. of Components: Single
Mix Ratio by Weight: N/A
Specific Gravity: 1.37
Pot Life: > 7 Days
Shelf Life- Bulk: One year at -40°C

Recommended Cure: 180°C / 1 Hour

Minimum Alternative Cure(s):
May not achieve performance properties listed below
 200°C / 5 Minutes
 180°C / 15 Minutes
 150°C / 1 Hour

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 insulating, low stress die attach epoxy designed for extended pot-life with fast curing techniques. It can be used for JEDEC level semiconductor packaging. Lead-frames loaded into magazines can be fast-cured inside traditional box ovens. Snap curing up 200°C - 220°C may be realized. Replacement for EPO-TEK® T6116-R2.

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):	Tan		
* Consistency:	Smooth thixotropic paste		
* Viscosity (23°C) @ 20 rpm:	11,000-18,000	cPs	
Thixotropic Index:	2.4		
* Glass Transition Temp:	≥ 35	°C (Dynamic Cure: 20-200°C/ISO 25 Min; Ramp -10-200°C @20°C/Min)	
Coefficient of Thermal Expansion (CTE):			
	Below Tg:	69	x 10 ⁻⁶ in/in°C
	Above Tg:	167	x 10 ⁻⁶ in/in°C
Shore D Hardness:	79		
Lap Shear @ 23°C:	> 2,000	psi	
Die Shear @ 23°C:	≥ 15	Kg	5,334 psi
Degradation Temp:	391	°C	
Weight Loss:			
	@ 200°C:	0.07	%
	@ 250°C:	0.43	%
	@ 300°C:	1.35	%
Suggested Operating Temperature:	< 325	°C (Intermittent)	
Storage Modulus:	163,691	psi	
Ion Content:	Cl ⁻ :	171 ppm	Na ⁺ : 93 ppm
	NH ₄ ⁺ :	30 ppm	K ⁺ : 7 ppm
* Particle Size:	≤ 20	microns	

ELECTRICAL AND THERMAL PROPERTIES:		
Thermal Conductivity:	0.3	W/mK
Volume Resistivity @ 23°C:	≥ 3 x 10 ¹³	Ohm-cm
Dielectric Constant (1KHz):	3.54	
Dissipation Factor (1KHz):	0.016	

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.

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