Product Information Sheet

EPO-TEK® T7116-R3

Date:	September 2017		**Recommended Cure: 180°C / 1 Hour**
Rev:	V		
No. of Components:	Two		Minimum Alternative Cure(s):
Mix Ratio by Weight:	95 : 5		*May not achieve performance properties listed below*
Specific Gravity:	Part A: 1.40	Part B: 1.18	200°C / 5 Minutes
Pot Life:	> 7 Days		180°C / 15 Minutes
Shelf Life- Bulk:	One year at room temperature		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.
- If Part B crystalizes in storage, place container in warm oven until crystallization disappears. Allow to cool to room temperature before mixing with Part A. Please refer to Tech Tip #7 on website.

Product Description: A two 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® T7116-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):	Part A: Tan	Part B: Amber		
* Consistency:	Smooth thixotropic paste			
* Viscosity (23°C) @ 20 rpm:	11,000-18,000		cPs	
Thixotropic Index:	2.0			
* Glass Transition Temp:	≥ 35		°C (Dynamic Cure: 20-220°C/ISO 25 Min; Ramp -10-200°C @20°C/Min)	
Coefficient of Thermal Expansion (CTE):				
Below Tg:	51		x 10^{-6} in/in°C	
Above Tg:	211		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:	0.4	W/mK
Volume Resistivity @ 23°C:	≥ 3 x 10^{13}	Ohm-cm
Dielectric Constant (1KHz):	3.54	
Dissipation Factor (1KHz):	0.016	

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