

EPO-TEK® TD1001-67

Technical Data Sheet
For Reference Only
Thermally Conductive Epoxy

Date: May 2021
Rev: X
No. of Components: Single
Mix Ratio by Weight: N/A

Specific Gravity: 1.28
Pot Life: 28 Days

Shelf Life- Bulk: One year at -40°C Shelf Life- Syringe: One year at -40°C

Recommended Cure: 150°C / 1 Hour

Minimum Alternative Cure(s):

May not achieve performance properties listed below

125°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.

<u>Product Description:</u> EPO-TEK® TD1001-67 is a soft single component, thermally conductive, electrically insulating epoxy. It is a more compliant version of EPO-TEK® TD1001.

<u>Typical Properties:</u> Cure condition: 150°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):	White	Э	
* Consistency:	Smoo	oth paste	
* Viscosity (23°C) @ 5 rpm:	10,0	00-20,000	cPs
Thixotropic Index:		1.9	
* Glass Transition Temp:		≥ 1	°C (Dynamic Cure: 20-300°C/ISO 25 Min; Ramp -40-200°C @20°C/Min)
Coefficient of Thermal Expansion (CTE):		
Bel	ow Tg:	57	x 10 ⁻⁶ in/in°C
Abo	ve Tg:	272	x 10 ⁻⁶ in/in°C
Shore A Hardness:		60	
Lap Shear @ 23°C:		1,356	psi
Die Shear @ 23°C:		≥ 2.5	Kg > 889 psi
Degradation Temp:		340	°C
Weight Loss:			
	200°C:	< 0.05	%
@ 2	250°C:	0.35	%
@:	300°C:	1.44	%
Suggested Operating Temperature: < 275		< 275	°C (Intermittent)
Storage Modulus:		54,539	psi
* Particle Size:		≤ 20	microns

ELECTRICAL AND THERMAL PROPE	RTIES:		
Thermal Conductivity:	0.5	W/mK	
Volume Resistivity @ 23°C:	$\geq 8 \times 10^{11}$	Ohm-cm	
Dielectric Constant (1KHz):	3.93		
Dissipation Factor (1KHz):	0.0688		

Epoxies and Adhesives for Demanding Applications™

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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EPO-TEK® TD1001-67 Advantages & Suggested Application Notes:

- Optimal for stress relief applications with its low Tg and long pot life
- Suitable for bonding ferrite cores in power devices
- Excellent adhesion to PCBs. Ceramics, most metals and lead frames
- Suggested applications:
 - o Semiconductor-
 - IC packaging on lead frame or FR4 PCB
 - Low stress die attach for die greater than 500 mil x 500 mil
 - o Electronics-
 - Bonding large Cu and Al heat sinks
 - Staking SMDs to PCB and other substrates
 - o Other-
 - LED thermal management
 - Heat sinking sensitive laser diode packages
 - Fiber optic component packaging and assembly