

## Product Information Sheet

**MATERIAL ID:**
**EPO-TEK® T905-1 (formerly 78-121-1)**
**Date:** 03/2009

**Per:**
**Rev:** II

Two component, thermally conductive, electrically insulating epoxy suggested for general adhesive bonding, sealing, potting and encapsulation applications. Replacement for EPO-TEK® T905.

**Material Description:**
**Number of Components:**

Two

**Mix Ratio by weight:**

100:20

**Cure Schedule (minimum)**

80°C/1 Hour - 60°C/2 Hours - 23°C/24 Hours

**Specific Gravity:**

--- Part A: 2.19 Part B: 1.03

**Pot Life:**

30 Minutes

**Shelf Life:**

One year at room temperature

*NOTE:* Container(s) should be kept closed when not in use. Filled systems should be stirred thoroughly before mixing and prior to use.

**MATERIAL CHARACTERISTICS:** *To be used as a guide only, not as a specification. Data below is not guaranteed. Different batches, conditions and applications yield differing results; Cure condition: 80°C/1 hour*

\* denotes test on lot acceptance basis

<b>PHYSICAL PROPERTIES:</b>			
	Part A: Grey		
<b>*Color (before cure):</b>	Part B: Amber		
<b>*Consistency:</b>	Pourable paste	<b>Die Shear @ 23°C:</b>	≥ 15 Kg / 5,100 psi
<b>*Viscosity (23°C):</b>		<b>Degradation Temp:</b>	346 °C
@ 20 rpm	6,000 - 13,000 cPs	<b>Weight Loss:</b>	
<b>Thixotropic Index:</b>	1.6	@ 200°C:	0.27 %
<b>*Glass Transition Temp:</b>	≥ 40 °C (Dynamic Cure	@ 250°C:	1.08 %
20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min)		@ 300°C:	2.67 %
<b>Coefficient of Thermal Expansion (CTE):</b>		<b>Operating Temp:</b>	
Below Tg:	25 x 10 <sup>-6</sup> in/in°C	Continuous:	- 55°C to + 175°C
Above Tg:	130 x 10 <sup>-6</sup> in/in°C	Intermittent:	- 55°C to + 275°C
<b>Shore D Hardness:</b>	80	<b>Storage Modulus @ 23°C:</b>	439,826 psi
<b>Lap Shear @ 23°C:</b>	> 2,000 psi	<b>*Particle Size:</b>	≤ 50 microns

<b>ELECTRICAL AND THERMAL PROPERTIES:</b>			
<b>Thermal Conductivity:</b>	0.59 W/mK	<b>Dielectric Constant (1KHz):</b>	4.83
<b>Volume Resistivity @ 23°C:</b>	≥ 1 x 10 <sup>12</sup> Ohm-cm	<b>Dissipation Factor (1KHz):</b>	0.009

<b>OPTICAL PROPERTIES @ 23°C:</b>			
<b>Spectral Transmission:</b>	N/A	<b>Index of Refraction:</b>	N/A

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