

## Preliminary Product Information Sheet

*(Note: These are typical properties to be used as a guide only, not a specification. Data below is not guaranteed. Different batches, conditions and applications yield differing results.)*

<b>MATERIAL ID:</b>	<b>EPO-TEK® T905-1 Black (formerly 78-121-1 Black)</b>
<b>Date:</b> 09/2009	<b>Per:</b> MMH
<b>Rev:</b> II	
<b>Material Description:</b>	Thermally conductive, electrically insulating epoxy suggested for general adhesive bonding, sealing, potting and encapsulation. Replacement for EPO-TEK® T905 Black.
<b>Number of Components:</b>	Two
<b>Mix Ratio:</b>	100:20
<b>Cure Schedule (minimum)</b>	80°C/1 Hour - 60°C/2 Hours - 23°C/24 Hours
<b>Specific Gravity:</b>	--- Part A: 2.37 Part B: 1.03
<b>Pot Life:</b>	30 Minutes
<b>Shelf Life:</b>	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:

PHYSICAL PROPERTIES:			
<b>Color (before cure):</b>	Part A: Black	Part B: Amber	
<b>Consistency:</b>	Pourable paste		<b>Die Shear @ 23°C:</b> 16.1 Kg
<b>Viscosity (23°C):</b>			<b>Degradation Temp:</b> 344 °C
@ 20 rpm	12,180 cPs		<b>Weight Loss:</b>
<b>Thixotropic Index:</b>			@ 200°C: 0.27 %
<b>Glass Transition Temp:</b>	61 °C		@ 250°C: 1.07 %
			@ 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		<b>Continuous:</b> - 55°C to + 150°C
Above Tg:	131 x 10 <sup>-6</sup> in/in°C		<b>Intermittent:</b> - 55°C to + 250°C
<b>Shore D Hardness:</b>	88		<b>Storage Modulus @ 23°C:</b> 442,745 psi
<b>Lap Shear @ 23°C:</b>	1,816 psi		<b>*Particle Size:</b> < 50 microns
ELECTRICAL AND THERMAL PROPERTIES:			
<b>Thermal Conductivity:</b>	0.58 W/mK		<b>Dielectric Constant (1KHz):</b>
<b>Volume Resistivity @ 23°C:</b>	Ohm-cm		<b>Dissipation Factor (1KHz):</b>
OPTICAL PROPERTIES @ 23°C:			
<b>Spectral Transmission:</b>	% @ nm		<b>Index of Refraction:</b> @ 589 nm
	% @ nm		

The data above is INITIAL only - it may be changed at anytime, for any reason without notice to anyone. It is provided only as a guide for evaluation/consideration.

\*These material characteristics are typical properties that are based on a limited number of samples/batches. All properties are based on the cure indicated above. Some properties may vary as manufactured quantities are scaled up to commercialized production levels.

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