

## Product Information Sheet

**MATERIAL ID:**

**EPO-TEK® T6065**

**Date:** 05/2006

**Per:**

**Rev:** II

**Material Description:**

A single component, high T<sub>g</sub>, thermally conductive, semiconductor die-attach grade epoxy. It was designed for bonding chips and SMD's inside hybrid micro-electronic packages. Other applications include JEDEC and opto-electronic packaging.

**Number of Components:**

Single

**Mix Ratio by weight:**

N/A

**Cure Schedule (minimum)**

180°C/1 Hour

**Specific Gravity:**

1.68                      ---      Part A:                      Part B:

**Pot Life:**

28 Days

**Shelf Life:**

One year at -40°C

*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: 180°C/1 hour*  
 \* denotes test on lot acceptance basis

<b>PHYSICAL PROPERTIES:</b>	
<p><b>*Color (before cure):</b> White</p> <p><b>*Consistency:</b> Smooth paste</p> <p><b>*Viscosity (23°C):</b> @ 2.5 rpm                      80,000 - 120,000 cPs</p> <p><b>Thixotropic Index:</b> 1.88</p> <p><b>*Glass Transition Temp:</b> ≥ 100 °C (Dynamic Cure 20—300°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min)</p> <p><b>Coefficient of Thermal Expansion (CTE):</b> Below T<sub>g</sub>: 38 x 10<sup>-6</sup> in/in°C Above T<sub>g</sub>: 136 x 10<sup>-6</sup> in/in°C</p> <p><b>Shore D Hardness:</b> 92</p> <p><b>Lap Shear @ 23°C:</b> &gt; 2,000 psi</p> <p><b>Die Shear @ 23°C:</b> ≥ 20 Kg / 6,800 psi</p> <p><b>Degradation Temp:</b> 397 °C</p>	<p><b>Weight Loss:</b></p> <p style="padding-left: 20px;">@ 200°C: 0.10 %</p> <p style="padding-left: 20px;">@ 250°C: 0.16 %</p> <p style="padding-left: 20px;">@ 300°C: 0.30 %</p> <p><b>Operating Temp:</b></p> <p style="padding-left: 20px;"><b>Continuous:</b> - 55°C to + 200°C</p> <p style="padding-left: 20px;"><b>Intermittent:</b> - 55°C to + 300°C</p> <p><b>Storage Modulus @ 23°C:</b> 816,394</p> <p><b>Ion Content:</b></p> <p style="padding-left: 20px;">Cl<sup>-</sup>: 135 ppm</p> <p style="padding-left: 20px;">NH<sub>4</sub><sup>+</sup>: 105 ppm</p> <p style="padding-left: 20px;">Na<sup>+</sup>: 48 ppm</p> <p style="padding-left: 20px;">K<sup>+</sup>: 6 ppm</p> <p><b>*Particle Size:</b> ≤ 20 microns</p>

<b>ELECTRICAL AND THERMAL PROPERTIES:</b>	
<p><b>Thermal Conductivity:</b> 0.794 W/mK</p> <p><b>Volume Resistivity @ 23°C:</b> ≥ 1.2 x 10<sup>14</sup> Ohm-cm</p>	<p><b>Dielectric Constant (1KHz):</b> 5.3</p> <p><b>Dissipation Factor (1KHz):</b> 0.011</p>

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

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