## Laser Diode Bonding

### Die Attach

<table>
<thead>
<tr>
<th>Product</th>
<th>Technology</th>
<th>Application</th>
<th>Key Attributes</th>
<th>Viscosity (cp)</th>
<th>Glass Transition Temperature, $T_g$ (°C)</th>
<th>Thermal Conductivity (W/m·K)</th>
<th>Cure Type</th>
<th>Cure Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCTITE ABLESTIK ABP 8068TA</td>
<td>Semi-Sintering</td>
<td>Conductive Adhesive</td>
<td>• One component • Dispensable • Printable low temp cure semi-sintering paste • High lead solder replacement • High thermal conductivity • High reliability</td>
<td>9,000</td>
<td>N/A</td>
<td>110 Heat</td>
<td></td>
<td>For the die size &lt; 5 x 5 mm: 20 min. ramp from 25°C to 130°C, hold for 30 to 60 min., 15 min. ramp to 200°C hold for 60 min. in N₂ or air oven. For the die size &gt; 5 x 5 mm: 20 min. ramp from 25°C to 130°C, hold for 120 min., 15 min. ramp to 200°C, hold for 120 min. in N₂ or air oven.</td>
</tr>
<tr>
<td>LOCTITE ABLESTIK ABP 8068TB</td>
<td>Semi-Sintering</td>
<td>Conductive Adhesive</td>
<td>• No resin bleed-out • One component • Good workability • Printable low temp cure semi-sintering paste • Good electrical stability • High thermal stability • High reliability • Solder replacement</td>
<td>11,500</td>
<td>25</td>
<td>110 Heat</td>
<td></td>
<td>For the die size &lt; 5 x 5 mm: 20 min. ramp from 25°C to 130°C, hold for 120 min., 15 min. ramp to 200°C, hold for 120 min. in N₂ or air oven. For the die size &gt; 5 x 5 mm: 20 min. ramp from 25°C – 130°C, hold for 120 min., 15 min. ramp to 200°C, hold for 120 min. in N₂ or air oven.</td>
</tr>
<tr>
<td>LOCTITE ABLESTIK 84-1LMI</td>
<td>Epoxy</td>
<td>Die-Attach</td>
<td>• Conductive • Low outgassing • Low bleed • Meets MIL-STD-883 • Method 5011 requirements</td>
<td>30,000</td>
<td>103</td>
<td>2.4 Heat</td>
<td></td>
<td>60 min. at 150°C</td>
</tr>
<tr>
<td>LOCTITE ABLESTIK 84-1LMISR4</td>
<td>Epoxy</td>
<td>Die-Attach</td>
<td>• Conductive • Excellent dispensability • Minimal tailing and stringing</td>
<td>8,000</td>
<td>120</td>
<td>2.5 Heat</td>
<td></td>
<td>60 min. at 175°C</td>
</tr>
<tr>
<td>LOCTITE ABLESTIK 8910T</td>
<td>BMI Hybrid</td>
<td>Die-Attach</td>
<td>• Non-conductive • High thermal conductivity • High reliability</td>
<td>22,000</td>
<td>30</td>
<td>1.3 Heat</td>
<td></td>
<td>30 min. ramp to 175°C + 15 min. at 175°C</td>
</tr>
<tr>
<td>LOCTITE ABLESTIK 84-3</td>
<td>Epoxy</td>
<td>Die-Attach</td>
<td>• Non-conductive • Solvent free formulation • Long work life</td>
<td>50,000</td>
<td>85</td>
<td>0.8 Heat</td>
<td></td>
<td>60 min. at 150°C</td>
</tr>
</tbody>
</table>