**Mid-Performance Gap Filler with 3 W/mK**

Tflex™ HR600 is a cost-effective and compliant gap filler thermal interface material with excellent thermal performance and great handling for mass-production applications.

The low modulus interface pad conforms to component topography, resulting in little stress on the components, mating chassis or parts. The softness relieves mechanical stress from high stack-up tolerance and absorbs shock, resulting in improved device reliability. Tflex HR600’s recovery properties for applications requiring material rework result in continued mechanical integrity even after device rework and re-assembly.

Tflex HR600 is naturally tacky on both sides and requires no additional adhesive coating to inhibit thermal performance. The tack is designed to hold the pad in place during assembly and component transport.

Tflex HR600 is electrically insulating, stable from -45°C thru 200°C, and meets UL 94V0 flame rating.

**Features and Benefits**

- Thermal conductivity 3 W/mK
- Soft and compliant
- Available in thicknesses from 0.010” thru 0.200” (0.25mm thru 5.0mm)
- Naturally tacky for adhesion during assembly and transport

**Applications**

- Cooling components to chassis, frame, or other mating components
- Memory modules
- Home and small office network equipment
- Mass storage devices
- Automotive electronics
- Telecommunication hardware
- Radios
- LED solid state lighting
- Power electronics
- LCD and PDP flat panel TV
- Set top boxes
- Audio and video components
- IT infrastructure
- GPS navigation and other portable devices
Innovative Technology for a Connected World

Tflex™ HR600 Series
Thermal Gap Filler

Tflex™ HR600 Typical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Tflex™ HR600</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Filled silicone elastomer</td>
<td>NA</td>
</tr>
<tr>
<td>Color</td>
<td>Dark Grey</td>
<td>Visual</td>
</tr>
<tr>
<td>Thermal conductivity</td>
<td>3 W/mK</td>
<td>ASTM D5470</td>
</tr>
<tr>
<td>Hardness (Shore 00)</td>
<td>40</td>
<td>ASTM D2240</td>
</tr>
<tr>
<td>Density</td>
<td>2.5 g/cc</td>
<td>Helium Pynometer</td>
</tr>
<tr>
<td>Thickness range</td>
<td>0.010&quot; - 0.200&quot; (0.25 to 5.0mm)</td>
<td></td>
</tr>
<tr>
<td>Thickness tolerance</td>
<td>±10%</td>
<td></td>
</tr>
<tr>
<td>UL flammability rating</td>
<td>94 V0</td>
<td>UL</td>
</tr>
<tr>
<td>Temperature range</td>
<td>-45°C to 200°C</td>
<td>NA</td>
</tr>
<tr>
<td>Volume resistivity</td>
<td>10 ^13 ohm-cm</td>
<td>ASTM D257</td>
</tr>
<tr>
<td>Outgassing TML</td>
<td>0.19%</td>
<td>ASTM E595</td>
</tr>
<tr>
<td>Outgassing CVCM</td>
<td>0.07%</td>
<td>ASTM E595</td>
</tr>
<tr>
<td>Coefficient Thermal Expansion</td>
<td>217 ppm/C</td>
<td>IPC-TM-650</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.424</td>
</tr>
</tbody>
</table>

Standard Thicknesses
0.010-inch to 0.200-inch (0.25 to 5.0 mm)
0.010-inch and 0.015-inch thick materials come standard with fiberglass reinforcement designated by the suffix “FG”

Options
Proprietary DC1 option available to eliminate tack from one side to aid in handling.

Material Name and Thickness
Tflex™ indicates elastomeric gap filler product line
HR6xxx indicates high recovery ‘6 series’ 3 W/mK material
FG designates fiberglass (available in 0.010 and 0.015-inch thickness only)
DC1 designates proprietary option eliminating tack from one side

Examples
Tflex™ HR6120 = 0.120-inch thick material
Tflex™ HR610FG = 0.010-inch thick material with fiberglass reinforcement
Tflex™ HR6120-DC1 = 0.120-inch thick material with proprietary DC1 option

Any information furnished by Laird Technologies, Inc. and its agents is believed to be accurate and reliable. All specifications are subject to change without notice. Responsibility for the use and application of Laird Technologies materials rests with the end user, since Laird Technologies and its agents cannot be aware of all potential uses. Laird Technologies makes no warranties as to the fitness, merchantability or suitability of any Laird Technologies materials or products for any specific or general uses. Laird Technologies shall not be liable for incidental or consequential damages of any kind. All Laird Technologies products are sold pursuant to the Laird Technologies’ Terms and Conditions of Sale in effect from time to time, a copy of which will be furnished upon request. © Copyright 2009 Laird Technologies, Inc. All Rights Reserved. Laird, Laird Technologies, the Laird Technologies Logo, and other marks are trade marks or registered trade marks of Laird Technologies, Inc. or an affiliated company thereof. Other product or service names may be the property of third parties. Nothing herein provides a license under any Laird Technologies or any third party intellectual property rights.