HSMF-OS
Thermal Interface Material

Introduction

Thermal interface material performance is crucial for burn-in applications. Ease of use and reliability are key factors as well. HSMF-OS is not designed for high-demand thermal applications as its thermal resistance is not that of a metallic TIM, such as an indium HSK product. However, it does have distinct attributes that address industry challenges, making it an excellent choice for many applications.

Product Advantages

• Adhesive Properties
One of the challenges associated with a burn-in TIM material is attachment methods. In some cases, adhesives/tapes can be used or fixturing is applied to hold the TIM in place. This can be both cumbersome, costly or have an adverse impact on performance. HSMF-OS has inherent adhesive properties that allow for hand placement, removing the need for additional steps and fixtures. The table below illustrates the material’s ability to retain adhesion strength.

• High-Insertion Capability
HSMF-OS is designed for high-insertion capability. The aluminum layer is the interface with the component being tested. Given aluminum’s tensile strength of approximately 90MPa and a soft compliant polymer backing, this provides a configuration with “designed in” insertion survivability.

HSMF products come with a release liner to protect the polymer layer. Be sure to remove the release liner before placement.

Temperature Profile Exposure

<table>
<thead>
<tr>
<th>Application Pressure: 50N/sqin</th>
<th>Ambient</th>
<th>125°C</th>
<th>150°C</th>
<th>175°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Delamination Force (N)</td>
<td>58.6</td>
<td>76.3</td>
<td>62.6</td>
<td>56.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Application Pressure: 100N/sqin</th>
<th>Ambient</th>
<th>125°C</th>
<th>150°C</th>
<th>175°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Delamination Force (N)</td>
<td>92.6</td>
<td>92.8</td>
<td>107.6</td>
<td>90.0</td>
</tr>
</tbody>
</table>

Storage and Packaging

HSMF-OS can be provided in a variety of packaging configurations, depending on volume and size. If automation is required, tape & reel packaging is available.

Unused material should be stored in original packaging.

Technical Support

Indium Corporation’s internationally experienced engineers provide in-depth technical assistance to our customers. Thoroughly knowledgeable in all facets of Material Science as it applies to the electronics and semiconductor sectors, Technical Support Engineers provide expert advice in solder properties, alloy compatibility, and selection of solder preforms, wire, ribbon, and paste. Indium Corporation’s Technical Support Engineers provide rapid response to all technical inquiries.

Safety Data Sheets

The SDS for this product can be found online at http://www.indium.com/sds

This product data sheet is provided for general information only. It is not intended, and shall not be construed, to warrant or guarantee the performance of the products described which are sold subject exclusively to written warranties and limitations thereon included in product packaging and invoices. All Indium Corporation’s products and solutions are designed to be commercially available unless specifically stated otherwise.

From One Engineer To Another

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