**HSMF**  
Thermal Interface Material

**Introduction**

HSMF thermal interface material is a departure from our metallic TIM offering in that it is a non-silicone-based polymer. In order to supply this type of product to the industry, we required that it meet some specific criteria. This material resists pump-out and bake-out, performs better over time, and is easy to use. HSMF material meets these requirements. This rounds out Indium Corporation’s offering to provide a full range of TIM materials.

**About this Product**

HSMF is a compressible material for use in a wide range of applications requiring thermal transfer. Large area thermal interface requirements, such as IGBTs, benefit from the .010” thickness. This is also helpful for die-cast heat-sinks with poor planarity. Assembly is efficient as this material has an inherent adhesive property, allowing for ease of placement. HSMF cleans up with IPA, making rework easy. Improved performance is ideal for long-life reliability, as this material does not pump-out or bake-out in use over time. This material is electrically conductive. This material is silicone-free.

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

### Mechanical and Physical

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Dark gray, aluminum backer</td>
</tr>
<tr>
<td>Hardness</td>
<td>Grease is compliant @ 10psi</td>
</tr>
<tr>
<td></td>
<td>Aluminum backer 310MPa</td>
</tr>
<tr>
<td>Thickness Range</td>
<td>100, 150 microns ± 12.5 microns</td>
</tr>
<tr>
<td>Pressure</td>
<td>10psi minimum to 500psi</td>
</tr>
<tr>
<td>Maximum Operating Range</td>
<td>-40–175°C</td>
</tr>
</tbody>
</table>

**Storage and Packaging**

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

Shelf life is 5 years in unopened packaging.

Unused material should be stored in original packaging resealed for up to 12 months at 18–20°C in 30–40% humidity.

**Safety Data Sheets**

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

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**From One Engineer To Another**

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