

# Solder Redefined



Contact  
Seth Homer



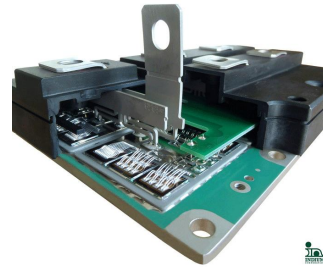
Read this post in: [Deutsch](#) [Espanol](#) [Francais](#) [한국어](#) [简体中文](#) [繁體中文](#)

Tags: [HeatSpring](#)

Category: [Soldering](#) [Soldering Products](#) [Thermal Interface Materials](#)

Posted On: November 15th, 2016

Considering the relentless push for higher power densities, coupled with increased cycling, a lot is being asked of insulated-gate bipolar transistors (IGBTs). Hybrid electric vehicles, green energy, and power management are just a few of the industries taking advantage of IGBT technology. The increased demand on the IGBT cascades down to the interconnect level of the device. Customarily we rely on the physical attributes of a properly manufactured and applied solder material. However, the traditional role of solder is being challenged by these demands on reliability and performance. We have engineered our solder products for this space to meet these challenges.



There are three attach levels of peak concern in the IGBT stack up.

## Die Attach

**Goal:** Low voiding, Improved wetting

**Answer:** Ultra-pure solder alloys designed and manufactured for die-attach grade use, ensuring successful wetting and low voiding in a flux-less attach system. In cases where a flux is needed, we provide flux coating formulations that achieve minimal voiding and good wetting.

**Products:**

*Semiconductor-Grade die-attach solder ribbon and solder preforms.*

[LV1000 flux coating](#)

## DBC to Baseplate

**Goals:** Bond line co-planarity

**Answer:** The addition of a metallic reinforcement matrix to the solder, acting as a stand-off which offers consistency in the bond line thickness and adds strength laterally which enhances thermal cycling survivability.

**Products:**

[InFORMS® for IGBTs](#)

## Baseplate to Heatsink

**Goals:** Superior thermal transfer capabilities that are resistant to degradation

[Blog Home](#)

Search the Entire Blog

Top Categories:

[All Categories](#)

[Avoid the Void](#)

[Solder](#)

[Solderability](#)

[Indium](#)

[Soldering](#)

Select A Category

[SDS](#)

[Data Sheets](#)

[Quality Documents](#)

[Buy Online](#)

[Tech Team](#)



**Answer:** A wide range of thermal interface materials that are pump out/bake out resistant and have superior Z-direction thermal conductivity

**Products:**

***HeatSpring® HSHP Sn+ Thermal Interface Material***

*HeatSpring® HSMF Thermal Interface Material*

To find out more about our products designed for IGBT assembly contact me directly!

 Like 1.5K  Share 3  Tweet 5  LinkedIn Share 5  Email 0  **Contact Author**

**Previous Post:**

The Impact of the Braze Furnace Profile has on Product Quality

**Next Post:**

Your "Common Cause Floor" will Help Define a Reasonable DPMO Target in Electronics Manufacturing

## From One Engineer to Another<sup>®</sup>

All of Indium Corporation's products and solutions are designed to be commercially available unless specifically stated otherwise.

### Americas

Utica, Chicago, Clinton  
E-Mail: [askus@indium.com](mailto:askus@indium.com)  
Phone: +1 315 853 4900

### Asia/Pacific

Singapore, Cheongiu, Penang  
E-Mail: [asiapac@indium.com](mailto:asiapac@indium.com)  
Phone: +65 6268 8678 [한국어 웹사이트](#)

### China

Suzhou, Shenzhen  
E-Mail: [china@indium.com](mailto:china@indium.com)  
Phone: +86 (0)512 628 34900 [中国网站](#)

### Europe

Milton Keynes, Torino  
E-Mail: [europa@indium.com](mailto:europa@indium.com)  
Phone: +44 (0)1908 580400

Regional/Local Sales Support | Technical Service & Support

State of California Transparency in Supply Chains Act

Indium Corporation — ©2018. All Rights Reserved. | [Site Map](#) | [Privacy Policy](#)