

# Thermal Interface Materials (TIMs)

Metal TIMs have higher thermal conductivity than non-metals, including greases.

## Keys to deciding the best metal TIM include:

- Thermal conductivity requirements
- Compressibility/pressure available
- Operating temperature of the device

## Advantages of metal TIMs:

- No pump-out or bake-out, as with thermal greases
- No surface preparation is required and clean-up is easy
- Available in standard and custom shapes and thicknesses
- Heat-Spring<sup>®</sup> pattern gives better contact between surfaces to eliminate air voids

Contact our engineers: [askus@indium.com](mailto:askus@indium.com)

Learn more: [www.indium.com](http://www.indium.com)

*All of Indium Corporation's solder paste and preform manufacturing facilities are IATF 16949:2016 certified. Indium Corporation is an ISO 9001:2015 registered company.*



# Thermal Interface Materials (TIM)

## Metal TIMs available:

- Solder TIMs: Pure indium, InAg, flux-coated available
- Compressible TIMs: Heat-Spring<sup>®</sup>
- Liquid Metal TIMs: GalliTHERM<sup>™</sup> Ga-based liquid metal and liquid metal paste
- Phase Change TIMs: Applied as a solid and the heat source changes the physical state of the TIM to a liquid metal



## Metal TIMs for burn-in applications

Because of the high thermal conductivity of 86W/mK, indium is ideal for burn-in and test applications. Pure indium can be clad with a thin aluminum layer (on the side facing the DUT) to prevent the indium from adhering to the surface.

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