

# Power Electronics Materials

## NC-SMQ75 Solder Paste

Industry-proven no-clean "Power-Safe" die-attach paste for high-Pb alloys

- Ultra-low post-reflow residue bonds strongly to overmolding materials
- Finished devices proven to AEC-Q101
- Eliminates cost of cleaning

## BiAgX® High-Temperature Pb-Free Solder Paste

- >260°C melting alternative to high-Pb solder
- High-reliability up to 200°C Tjmax
- Drops into current high-Pb paste assembly process

## HSMF Non-Silicone-Based Thermal Compounds

- Perform well in applications with large area thermal interface requirements
- Inherent adhesive property for easy placement and clean-up
- No pump-out or bake-out over time

## Solder Preforms and Ribbons

Wide portfolio to meet all needs

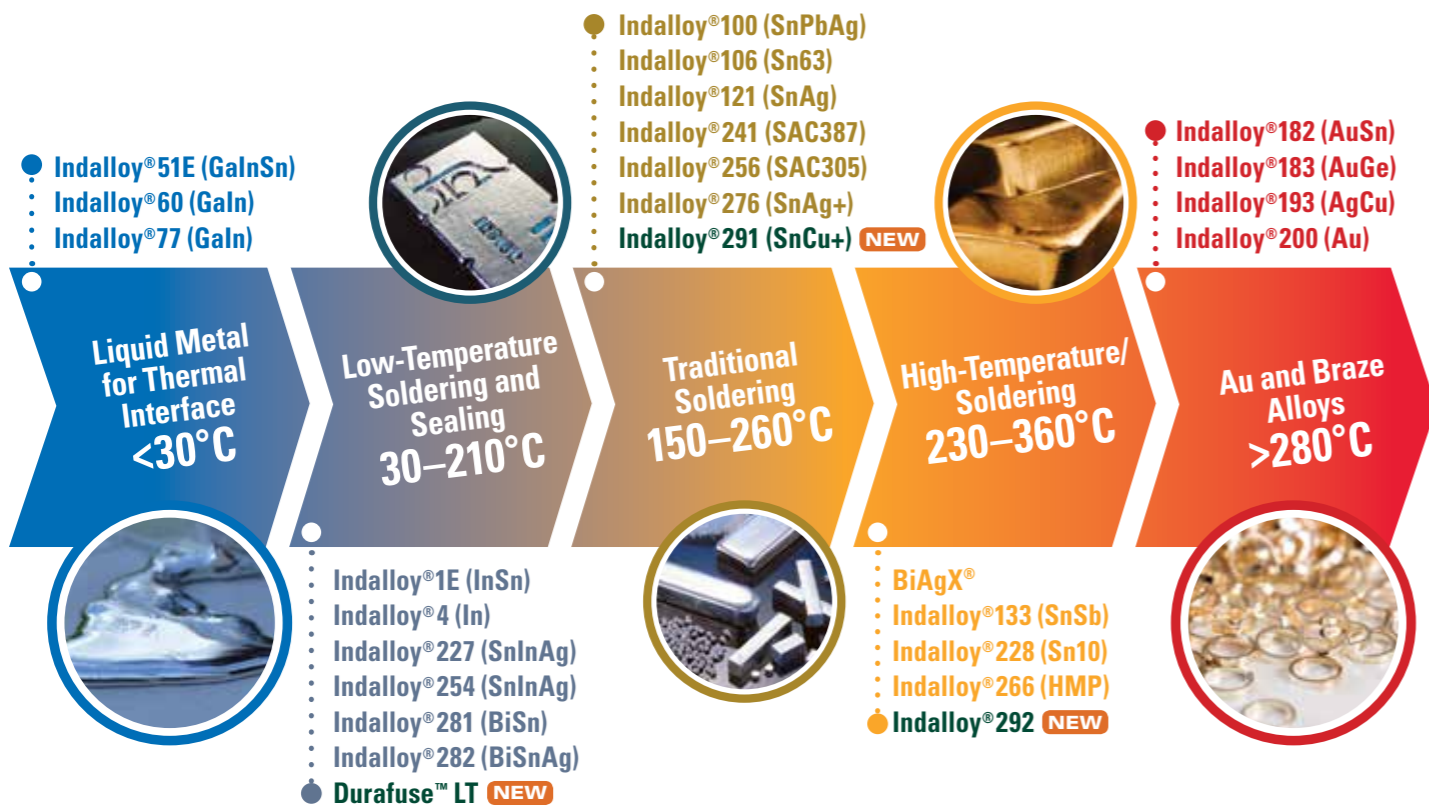
- Over 800 solder alloys available
- Tight tolerance gives precise solder volume
- Standard and custom shapes and thicknesses
- Uniformly flux-coated preforms also available

## Indium3.2HF Solder Paste with Indalloy®121

Industry-proven water-soluble solder paste for heat spreader attach

- High thermal conductivity
- Low-voiding
- Long working life
- Easy residue cleaning with DI water

# Continuous Alloy Innovation



# Solutions for Power Electronics

Indium Corporation is the leader in power electronics assembly materials.



Learn more: [www.indium.com/PowerElectronics](http://www.indium.com/PowerElectronics)  
 Contact our engineers: [askus@indium.com](mailto:askus@indium.com)  
**From One Engineer To Another®**

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.

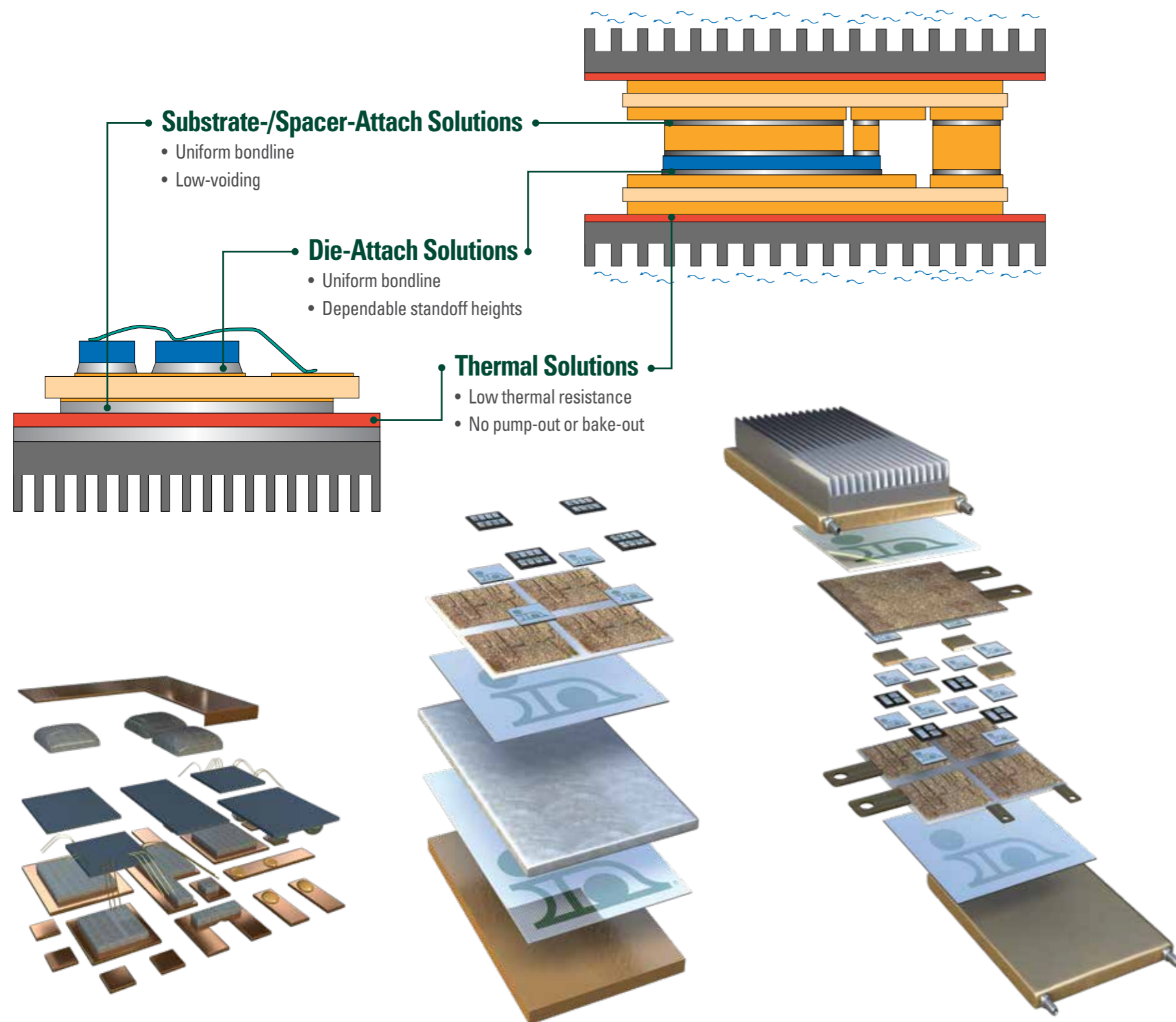
©2020 Indium Corporation

Form No. 99659 (A4) R1



# Solder Redefined™

Solder and Thermal Solutions for ALL Power Electronics Devices



## Recommended products for power electronics

### InFORMS®

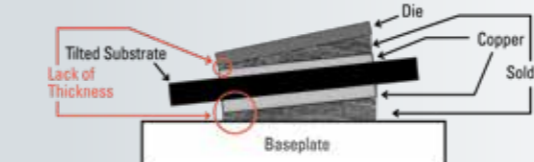
#### Reinforced Solder Preforms and Ribbon\*

Produce consistent bondline thickness on die- and substrate-level

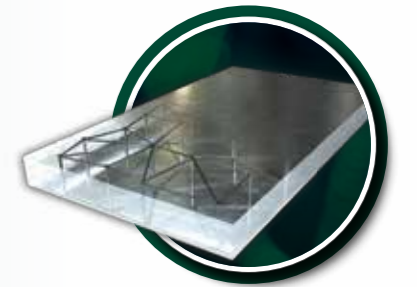
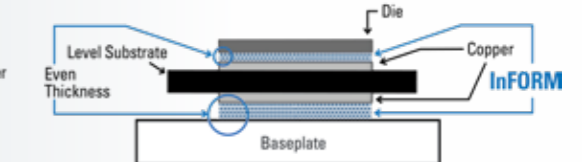
- >2X increase in reliability (-55/+150°C) passes 3,500 thermal cycles
- Most uniform bondline control
- Improved strength and dependable standoff heights

\*Patent pending

#### Problem:



#### Solved:

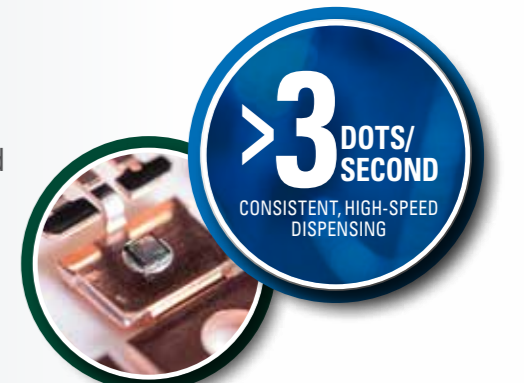


### QuickSinter® **NEW**

#### Silver Sintering Paste

Pressureless sintering solution with pressurized sintering capabilities

- Excellent joint strength
- Controllable bondline thickness from 30–70µm
- Versatile sintering profiles



### Heat-Spring®

#### Metal Thermal Interface Materials (Sn+)

Prevent the power die from overheating

- Patterned, compressible interface
- Optimizes performance between the heat source and a heat-sink
- No pump-out or bake-out over time



Low Power Density

High Power Density

