# Proven High-Reliability Solders for Power Discrete Assembly

# NC-SMQ75

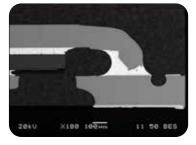
#### Ultra-Low Residue Die-Attach Paste

- Industry leading
- Excellent workability
- Ultra-low residue
- Compatibility with OM

### Compatibility with OMC

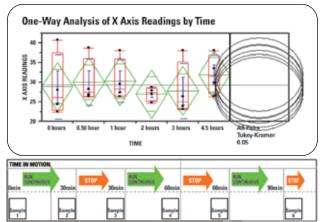
Clip-bonded package

- 1,000 hours thermal cycles (-55 to +130°C)
- SEM of cross-section
  - No evidence of flux residues
  - No delamination



### **Dispense Consistency**

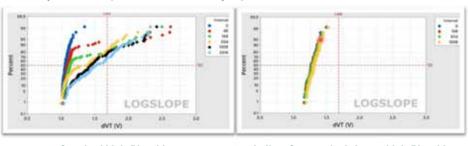
Statistically-based dispense trials showed no variation in deposit size, even after multiple start/stop cycles, including dispense after a 90-minute pause.



## Low-Alpha

- Common high-Pb alloys Pb/Sn5/Ag2.5 & Pb/Sn5
- Alpha emission materials <0.01 CPH.CM2</li>
- Compatible with high volume flux vehicles (e.g., NC-SMQ75)
- Mitigate leakage current caused by alpha particle impact

Example: HTGB - Vgs = 20V, T = 150°C, sampling intervals @ 0, 48, 168, 504, and 1,008 hours



Standard high-Pb solder

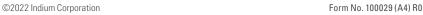
Indium Corporation's low-  $\alpha$  high-Pb solder

Contact our engineers: askus@indium.com

Learn more: www.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.



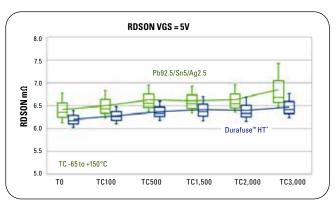


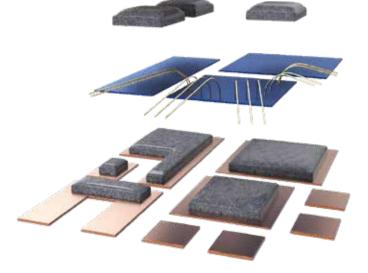
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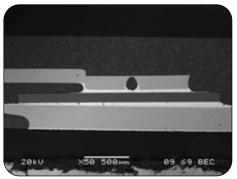
High-Temperature Pb-Free Solder Paste

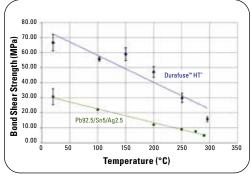
## **Durafuse**<sup>™</sup> HT<sup>\*</sup>

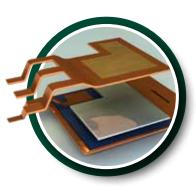
- "Drop-In" to high-Pb process
- Equal to or better than high-Pb solder for thermal and electrical properties











## **QuickSinter®**

- Pressureless Ag silver sinter paste as an alternative to high-Pb solder die-attach
- Pressure Ag sinter paste available for power module die-to-substrate and substrate-to-heat-sink attach

\*Patent pending

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