Eutectic Gold/Tin Solder

Features

- AuSn (Gold/Tin) alloy provides great joint strength
- AuSn alloy offers superior resistance to corrosion and superior thermal conductivity when compared to standard solders
- AuSn alloy is compatible with precious metals
- AuSn is RoHS compliant

When to Use AuSn Eutectic Solder

- **Die-Attach:** Thermal requirements often mandate a high-melting die-attach solder. With a melting point of 280°C, eutectic AuSn often satisfies these demands.
- **Hi-Reliability Applications:** AuSn's compatibility with gold metallizations, coupled with its long-term reliability, make it a good choice for high-rel applications such as microwave systems, medical and aerospace applications, and more.
- **Lid Sealing:** AuSn's excellent wetting properties, its relatively low melting point (when compared to certain die-attach alloys), and its long-term reliability make this alloy desirable for lid sealing applications.
- **Braze Alternative:** Eutectic AuSn, with a tensile strength of 275 MPa (40,000 pounds/square inch), provides a great alternative to brazes when high strength must be achieved at soldering temperatures.

Forms of AuSn

Indium Corporation's eutectic AuSn solder is available in many forms, including:

- Wire
- Ribbon
- Preforms
- Solder paste

Precision wire, ribbon, or preforms are produced to exact dimensions, meeting customers' precise demands.

Solder paste is available in a variety of parameters to address individual needs.

Physical Properties

Composition	Au80Sn20
Melting Point	280°C/536°F
Density	14.51 grams/cm^3
Tensile Strength	40,000 psi
Shear Strength	40,000 psi
Coefficient of Thermal Expansion	16 ppm/°C@20°C
Thermal Conductivity	0.57 w/cm°C@85°C
Young's Modulus	8.57 x 10^6 psi

All information is for reference only. Not to be used as incoming product specifications.

Solder preforms are also available in AuGe, AuSi and pure Au.

Technical Support

Indium Corporation's internationally experienced engineers provide in-depth technical assistance to our customers. Thoroughly knowledgeable in all facets of Material Science as it applies to the electronics and semiconductor sectors, Technical Support Engineers provide expert advice in solder properties, alloy compatibility and selection of solder preforms, wire, ribbon and paste. Indium Corporation's Technical Support engineers provide Rapid Response to all technical inquiries.

Material Safety Data Sheet

The MSDS for this product can be found online at http://www.indium.com/techlibrary/msds.php

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