PRODUCT DATA SHEET AuLTRA® Fine Wire for Medical and Aerospace Applications

Introduction

Indium Corporation's AuLTRA® Fine Wire is a precision, high-reliability AuSn wire suitable for medical, aerospace, and other critical applications. Our AuLTRA® Fine Wire delivers superior wetting and solderability, and offers high yield in automated processes. All solder wire complies with the requirements of ASTM B-32, J-STD-006 (formerly QQS-571F), and JIS-Z-3282.

Wire Diameters

Capabilities range from .001" (0.025mm) diameter to .250" (6.35mm) and larger. Actual dimensions achievable are subject to the properties of each metal.

We have developed standard tolerances but can work with you to accommodate any special requirements. Standard tolerances are:

Packaging

Diameter	Standard Tolerance			
Up to .002" (.050mm)	± .0005" (.0127mm)			
>.002" (.050mm) to .010" (.254mm)	± .002" (.050mm)*			
>.010" (.254mm) to .060" (1.52mm)	± .002" (.050mm)			
>.060" (1.52mm) to .250" (6.35mm)	± .003" (.076mm)			
>.250" (6.35mm)	± 2.5%			

* Certain alloys can be manufactured with tighter tolerances by request. To learn more about tighter tolerances, please contact your Indium Corporation representative.

Solder wire is packaged on spools. We can create specialized packaging to meet specific needs, such as spool size, quantity per spool, or other requirements.

Storage

The shelf life of solder wire is determined by the alloy and its resistance to oxidation, as well as the storage container and the conditions in which it is stored.

To increase storage time, and to keep surface oxidation to a minimum, store wire tightly closed in the original container in 55% RH or less, and at temperatures below 22°C. Wire can also be stored in an inert atmosphere, such as a nitrogen dry box.

Delivery

Short lead times enable you to get your order in time to meet your production schedule.

Each order can be shipped with a Certificate of Analysis, which includes information on metallic impurities. We can also provide a Certificate of Conformance when wire is made to customer specifications.

Technical and Customer Support

Indium Corporation's internationally experienced engineers provide in-depth technical assistance to our customers. Thoroughly knowledgeable in all facets of Materials 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.

Safety Data Sheets

Please refer to the SDS document within the product shipment, or contact our local team to receive a copy.

Physical Properties of Gold-Tin Solder Wire

Liquidus (°C/°F)	Solidus (°C/°F)	Indalloy® Number	Composition	Plastic Range (°C/°F)	Mass Density (gm/cm³)	Electrical Conductivity (% of Cu)	Thermal Conductivity W/cm°C @ 85°C	Thermal Coefficient of Expansion µ in/in/°C @ 20°C	Tensile Strength (psi)	Bond Holding Strength (Shear) (psi)
280/536	280/536	182	80Au/20Sn	Eutectic	14.51		0.57	16.0	40,000	40,000

This product data sheet is provided for general information only. It is not intended, and shall not be construed, to warrant or guarantee the performance of the products described which are sold subject exclusively to written warranties and limitations thereon included in product packaging and invoices. All Indium Corporation's products and solutions are designed to be commercially available unless specifically stated otherwise.

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.

From One Engineer To Another

Contact our engineers: askus@indium.com Learn more: www.indium.com

ASIA +65 6268 8678 • CHINA +86 (0) 512 628 34900 • EUROPE +44 (0) 1908 580400 • USA +1 315 853 4900







Form No. 100302 (A4) R0