**Lead-Free Solid Solder Wire**

for High Reliability Soldering

**Product Description**

For soldering applications that require maximum reliability of solder joints, especially for surface mounted components, through hole and final assembly, only solder of the highest purity is acceptable. Kester does not make any vague claims of understanding solder purity. Only the highest quality metals are used to make Kester Solder Wire. Complete analysis of Kester Solder Wire prove that every batch conforms to the strictest quality controls in the solder industry.

**Maximum Allowed Impurities**

Kester Solder Wire meets IPC Specifications J-STD-006C Amendment 1.

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| --- | --- | --- |
| Element | Symbol | ANSI/IPC J-STD-006C |
| Silver | Ag | 0.100 or component |
| Copper | Cu | 0.080 or component |
| Antimony | Sb | 0.200 or component |
| Gold | Au | 0.050 |
| Aluminum | Al | 0.005 |
| Cadmium | Cd | 0.002 |
| Zinc | Zn | 0.003 |
| Bismuth | Bi | 0.100 or component |
| Arsenic | As | 0.030 |
| Iron | Fe | 0.020 |
| Nickel | Ni | 0.010 |
| Indium | In | 0.100 |
| Lead | Pb | 0.070 |

The component elements in each alloy shall deviate from their nominal mass percentage by not more than 0.020% of the alloy mass when their nominal percentage is <0.10%; by not more than 0.10% of the alloy mass when their nominal per- centage is >0.10% to <1.0%; by not more than 0.20% of the alloy mass when their nominal percentage is >1.0% to <5.0% or by not more than 0.50% when their nominal percentage is >5.0%.

Kester solder purchased directly or through stocking distributors will conform to these requirements. Only highest purity virgin metals are used to make Kester Lead-Free Solder Wire. There is no requirement that antimony must be included in solder. DOD-STD-2000-1A (Soldering Technology High Quality/High Reliability) states that it is the responsibility of the manufacturer to select those materials and processes that will produce acceptable high quality/high reliability products.

**RoHS Compliance**
This product meets the requirements of the Restriction of Hazardous Substances (RoHS) Directive. Additional RoHS information is located at <https://www.kester.com/downloads/environmental>.

**Availability**

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| --- | --- |
| Alloy | Melting Point |
| Sn96.5Ag3.5 | 221 °C (430 °F) |
| Sn96.5Ag3.0Cu0.5 | 217 to 220 °C (423 to 428 °F) |
| Sn100 | 232 °C (450 °F) |
| K100LD | 226 to 230 °C (438 to 446 °F) |
| Sn97Ag3 | 221 to 224 °C (430 to 435 °F) |
| Sn95Ag5 | 221 to 245 °C (430 to 473 °F) |
| Sn95Sb5 | 232 to 240 °C (450 to 464 °F) |
| Sn96.3Ag3.7 | 221 °C (430 °F) |
| Sn97Ag0.2Sb0.8Cu2 | 220 to 234 °C (428 to 454 °F) |

Other lead-free alloy compositions may be available. Consult your local Kester Sales Representative.

**Recycling Services**

We provide safe and efficient recycling services to help companies meet their environmental and legislative requirements and at the same time, maximize the value of their waste streams.

Our service collects solder dross, solder scrap, and various forms of solder paste waste.  Please contact your local sales representative for recycling capabilities in your area or [link here](https://www.kester.com/services/reclaim-recycling-services?utm_source=alpha-document-link&utm_medium=tech-bulletin&utm_campaign=recycling-kester).

**Storage, Handling and Shelf Life**

See ALPHA and Kester Solid Solder Storage, Handling and Shelf Life reference bulletin document for more information.

**Health and Safety**

This product, during handling or use, may be hazardous to your health or the environment. Read the Safety Data Sheet and warning label before using this product. Safety Data Sheets are available at this [link](https://macdermidalpha.com/assembly-solutions/knowledge-base/safety-data-sheets).

**Contact Information**

To confirm this document is the most recent version, please contact Assembly@MacDermidAlpha.com

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| **North America**109 Corporate Blvd.South Plainfield, NJ 07080, USA1.800.253.7837 | **Europe** Unit 2, Genesis Business Park Albert DriveWoking, Surrey, GU21 5RW, UK44.01483.758400 | **Asia Pacific**8/F., Paul Y. Centre51 Hung To Road Kwun Tong, Kowloon, Hong Kong 852.3190.3100  |

Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE. Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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