



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.

Element	Symbol	ANSI/IPC J-STD-006C
Tin	Sn	0.250
Silver	Ag	0.100
Copper	Cu	0.080
Antimony	Sb	0.200
Gold	Au	0.050
Aluminum	Al	0.005
Cadmium	Zn	0.002
Zinc	Bi	0.003
Bismuth	Bi	0.100
Arsenic	As	0.030
Iron	Fe	0.020
Nickel	Ni	0.010
Indium	In	0.100
Lead	Pb	0.050

For alloy composition, Copper (Cu) and Silver (Ag) content of the solder shall be maintained within $\pm 0.20\%$ of the nominal alloy composition being used, when alloy component $\leq 5.0\%$. Otherwise the allowable tolerance range is $\pm 0.50\%$. The balance of the solder shall be Tin and/or the items listed above.

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

Alloy	Melting Point
Sn96.5Ag3.5	221°C (430°F)
Sn96.5Ag3.0Cu0.5	217-220°C (423-428°F)
Sn99.3Cu0.7	227° (441°F)
Sn100	232° (450°F)
K100LD	226-230°C (438-446°F)
Sn97Ag3	221-224°C (430-435°F)
Sn95Ag5	221-245°C (430-473°F)
Sn96Ag4	221-226°C (430-438°F)

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

Storage and Shelf Life

Solid solder wire has an indefinite working life when stored in a dry, non-corrosive environment between 10°C-40°C (50-104°F). The DOE and storage conditions will represent the manufacturer's warranty period or the time frame wherein Kester will replace defective product.

Over time, the surface of wires may lose its shine and appear a dull shade of gray. This is a surface phenomenon and is not detrimental to product functionality.

Health and Safety

This product, during handling or use, may be hazardous to your health or the environment. Read the Safety Data Sheet (SDS) and warning label before using this product.