

# Ultrapure<sup>®</sup> High Reliability Extruded Bar Solder

### Lead-bearing and Lead-free alloys

# **Product Description**

For soldering applications which require maximum reliability of solder joints, especially for surface mounted components, only solder of the highest purity is acceptable. Kester does not make any vague claims of outstanding solder purity. Complete analysis of Kester Ultrapure<sup>®</sup> Bar Solders prove that every batch conforms to the strictest quality control standards in the solder industry.

## **Maximum Allowed Impurities**

Kester Ultrapure<sup>®</sup> Bar Solder meets the requirements of current industry standards for allowable impurity requirements. Elements are considered impurities if they are not listed as components in the composition of the alloy.

Element	Symbol	J-STD-006C	Kester Ultrapure®
Tin	Sn	0.25	0.2500
Lead	Pb	0.07	0.0700
Antimony	Sb	0.20	0.2000
Copper	Cu	0.08	0.0800
Gold	Au	0.05	0.0500
Aluminum	AI	0.005	0.0050
Cadmium	Cd	0.002	0.0020
Zinc	Zn	0.003	0.0030
Silver	Ag	0.10	0.1000
Bismuth	Bi	0.10	0.1000
Arsenic	As	0.03	0.0300
Iron	Fe	0.02	0.0200
Indium	In	0.10	0.1000
Nickel	Ni	0.01	0.0100

Kester Ultrapure<sup>®</sup> will conform to these requirements when purchased directly or through stocking distributors. Kester is the only manufacture of Ultrapure<sup>®</sup> quality solder. Kester Ultrapure<sup>®</sup> conforms to the requirements of J-STD-006C. 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.

# **Available Alloys**

	Melting Point	
Lead-bearing		
Sn63Pb37	183°C (361°F)	
Sn60Pb40	183-190°C (361-374°F)	
Lead-free		
K100LD	~227°C (441°F)	
Sn96.5Ag3.5	221°C (430°F)	
Sn96.5Ag3.0Cu0.5	217-220°C (423-428°F)	
Sn99.3Cu0.7	227°C (441°F)	
Sn100	232°C (450°F)	

#### Storage and Shelf Life:

Kester Ultrapure<sup>®</sup> solder has no limited shelf life when handled properly. Storage must be in a dry, non-corrosive environment. The solder surface may lose its shine and appear a dull shade of gray. This is a surface phenomenon and is not detrimental to product functionality.

#### Health & Safety:

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

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The data recommendations presented are based on tests, which we consider reliable. Because Kester has no control over the conditions of use, we disclaim any responsibility connected with the use of any of our products or the information presented. We advise that all chemical products be used only by or under the direction of technically qualified personnel who are aware of the potential hazards involved and the necessity for reasonable care in their handling. The technical information contained herein is consistent with the properties of this material but should not be used in the preparation of specifications as it is intended for reference only. For assistance in preparing specifications, please contact your local Kester office for details.