

97.5/ 1.5 / 1

(97.5 Pb / 1.5 Ag / 1 Sn Lead-Silver-Sn Soft Solder)

NOMINAL COMPOSITION

Tin	.75%-1.25%	Antimony	0.4% Max	Arsenic	0.02% Max
Silver	1.3%-1.7%	Cadmium	0.001% Max	Iron	0.02% Max
Lead	Remainder	Copper	0.30% Max	Aluminum	0.005% Max
Zinc	0.005% Max	Bismuth	0.25% Max		

PHYSICAL PROPERTIES

Color	Silver White
Melting Point (Solidus)	588°F (309°C)
Flow Point (Liquidus)	588°F (309°C)
Specific Gravity	11.29
Density (Lbs/in ³)	0.408
Electrical Conductivity (% IACS)	N/A
Electrical Resistivity (Microhm-cm)	N/A

*IACS = International Annealed Copper Standard

SOLDERING CHARACTERISTICS

97.5/1.5/1 is a general purpose soft solder used in applications involving soldering of copper and copper alloys and/or ferrous base alloys. This alloy should not be used in soldering of potable water systems due to its high lead content. A lead free alloy should be used instead. For water potable systems LM recommends Silver/Copper/Tin system such as Silvabrite®-No Lead, or Tin/Silver systems such as Silvabrite and /or Silvabrite 6. The use of TEC flux is recommended in conjunction with this alloy.

PROPERTIES OF SOLDER JOINTS

The properties of a soldered joint are dependent upon numerous factors including base metal properties, joint design, metallurgical interaction between the base metal and the filler metal. Joint clearances of 0.003 - 0.005 in. (0.076 - 0.127 mm) per side are optimum for achieving highest joint strength. Joints with increased clearances can still produce adequate joint strengths depending on final operating conditions.

AVAILABLE FORMS

Wire, strip, engineered preforms, specialty preforms per customer specification, powder and paste.

SPECIFICATIONS

97.5/ 1.5/ 1 alloy conforms to the following specifications:

- American Society for Testing and Materials (ASTM) B32 Ag 1.5

APPLICABLE PRODUCT CODE(S)

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 63-015.

SAFETY INFORMATION

The operation and maintenance of brazing equipment or facility should conform to the provisions of American National Standard (ANSI) Z49.1, "Safety in Welding and Cutting". For more complete information refer to the Material Safety Data Sheet for 97.5/1.5/1.

WARRANTY CLAUSE

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