

63/37

(63 Sn / 37 Pb Tin-Lead Soft Solder)

NOMINAL COMPOSITION

Tin	62.5%-63.5%	Antimony	0.5% Max	Arsenic	0.03% Max
Lead	Remainder	Cadmium	0.001% Max	Iron	0.02% Max
Copper	0.08% Max	Aluminum	0.005% Max	Zinc	0.005% Max
Silver	0.015% Max	Bismuth	0.25% Max		

PHYSICAL PROPERTIES

Color	White
Melting Point (Solidus)	361°F (183°C)
Flow Point (Liquidus)	361°F (183°C)
Specific Gravity	8.42
Density (lbs /in ³)	0.304
Electrical Conductivity (%IACS)	12.4
Electrical Resistivity (Microhm-cm)	15.0

*IACS = International Annealed Copper Standard

SOLDERING CHARACTERISTICS

Although 63/37 is widely used in electronics for both manual and automatic soft soldering applications, it is also used in general purpose applications where fast alloy flow is desired. This alloy offers good corrosion resistance properties, has the highest strength of the tin/lead series and generally is used where low soft soldering temperature requirements are required.

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 - 0.127mm) 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, engineered preforms, specialty preforms per customer specification, powder and paste.

SPECIFICATIONS

63/37 alloy conforms to the following specifications:

- American Society for Testing and Materials (ASTM) B32 Sn63

APPLICABLE PRODUCT CODE(S)

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: A00000137, Legacy Codes: 63-630, 35537.

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 63/37.

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