

## 63/37

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

### ***NOMINAL COMPOSITION***

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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***

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

\*IACS = International Annealed Copper Standard

### ***SOLDERING CHARACTERISTICS***

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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***

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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***

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

### ***SPECIFICATIONS***

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63/37 alloy conforms to the following specifications:

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

## ***APPLICABLE PRODUCT CODE(S)***

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

## ***SAFETY INFORMATION***

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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.

## ***WARRANTY CLAUSE***

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