

Technical Data Sheet

40/60

(40 Sn / 60 Pb Tin-Lead Soft Solder)

NOMINAL COMPOSITION

Tin	39.5%-40.5%	Antimony	0.5% Max	Arsenic	0.02% 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)	460°F (238°C)
Specific Gravity	9.30
Density (Lbs/in ³)	0.335
Electrical Conductivity (%IACS)	10.1
Electrical Resistivity (Microhm-cm)	17.07

*IACS = International Annealed Copper Standard

SOLDERING CHARACTERISTICS

40/60 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 100, or Tin/Silver systems such as Silvabrite and/or Silvabrite 6.

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. 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

40/60 alloy conforms to the following specifications:

- American Society for Testing and Materials (ASTM) B32 Sn40A

APPLICABLE PRODUCT CODE(S)

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: A00000078, Legacy Codes: 63-400, 30494, 30916 (Acid Core), 30908 (Rosin Core).

Distribution P/N: 58465, 58467 (Acid Core), 58466 (Rosin Core).

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 40/60.

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