Technical Data Sheet

Sn95/Sb5 – WRMAP3.3%

NOMINAL COMPOSITION

Tin	94% Min	Lead	0.1% Max	Arsenic	0.01% Max
Antimony	4.5% –5.5%	Cadmium	0.005% Max	Iron	0.04% Max
Copper	0.08% Max	Aluminum	0.005% Max	Zinc	0.005% Max
Silver	0.015% Max	Bismuth	0.15% Max		

Flux – 3.3% Mildly Activated Rosin (RMA) Core

PHYSICAL PROPERTIES

Solder Alloy

Color	White
Melting Point (Solidus)	450°F (233°C)
Flow Point (Liquidus)	464°F (240°C)
Specific Gravity	7.26
Density (Lbs/in^3)	0.263
Bulk Room Temperature Tensile Strength (PSI)	5,900

Flux Test Results

Tested in accordance to the J-STD-004, IPC-TM-650 methods. (Type ROL0)

Test	Results
Copper Mirror Corrosion Test	Passed
Corrosion Test	Passed
Silver Chromate Paper Test	Passed
Chloride and Bromides	None Detected
Fluorides by Spot Test	Passed

SOLDERING CHARACTERISTICS

Sn95/Sb5 is a general-purpose solder used in applications involving soldering of copper and copper alloys and/or ferrous base alloys where use of lead containing solder is not permitted. This soft solder may be used in applications involving higher service temperatures. Typical applications for this alloy include copper components in air conditioning industry. This alloy is also recommended in applications involving food handling or drinking water components where use of lead containing alloys is not permitted. Antimony bearing alloys are not recommended in soldering of brass parts due to formation of a brittle Sb-Zn inter-metallic.

This flux-cored solder was developed for use in the electronics industry where difficult assemblies are to be soldered., but process requirements stipulate use of a mildly activated rosin flux.

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.

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REMOVAL OF FLUX RESIDUE

In most cases, the flux residue remaining on the parts after soldering is considered non-hygroscopic. When the residue is not cleaned, it acts as a conformal coating protecting the assembly from moisture. For critical applications where the highest reliability is required, cleaning is recommended. Residue removal can be accomplished with the use of 70% isopropyl alcohol.

AVAILABLE FORMS

Flux-Cored Wire on 1lb or 5lb spools.

SPECIFICATIONS

Sn95/Sb5 alloy conforms to the following specifications:

- American Society for Testing and Materials (ASTM) B32 Sb5 WRMAP3.3

APPLICABLE PRODUCT CODE(S)

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: Sn95/Sb5 – WRMAP3.3%

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 95/5.

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