

# ALPHA<sup>®</sup> HIFLO Sn63Pb37

## High Fluidity Bar Solder

### DESCRIPTION

**ALPHA HiFlo Sn63Pb37** solder is manufactured using highest purity of metals through a process using Alpha's proprietary viscosity and dross lowering treatments which create the purest, lowest drossing, highest fluidity solder. **ALPHA HiFlo Sn63Pb37** is then alloyed and cast in a closed-loop injection system under a nitrogen blanket which leaves it free of cast-in impurities and included oxides. This enhances its low drossing characteristics.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

### FEATURES & BENEFITS

#### Features:

- Increases production speed
- Minimizes drossing
- Reduces icicling
- Solders at lower temperature
- Selective control of raw materials
- Unique process for pot monitoring & analysis
- Proprietary pot treatments for control of oxides & viscosity
- Reduces production cost
- Reduces bridging
- Solders densely populated boards
- Increases yield
- Nitrogen inerted molten casting process
- Proprietary control of trace elements to inhibit the
- Minimal dross formation

#### Benefits:

- Decreases wetting force required to wet out pads & thru-holes
- Decreased bridging in fine pitch technology
- Smaller fillets yield more joints per pound
- Lowers dross generation
- Easier inspection & less rework / touch-up due to brighter solder joints
- Significantly improves throughput
- Better peel off at wave exit
- Compensates for board design that causes shadowing & reduces solder skips
- True parabolic shaped fillets
- Extends pot life by allowing lower operating temperature
- Decreases solder defects
- Reduces surface tension in nitrogen blanket soldering equipment

**APPLICATION GUIDELINES**

ALPHA HiFlo Sn63Pb37 is the ideal companion product for all wave soldering systems including inert atmosphere equipment. When used to solder Surface Mount Technology (SMT), fine pitch, or densely populated boards, the lowest defect rates and highest number of solder joints per pound possible are achieved. ALPHA HiFlo Sn63Pb37's high purity and fluidity reduces rework by minimizing bridging, icicling, and other causes of defective joints and can be used at lower operating temperatures.

**TECHNICAL SPECIFICATIONS**

The following indicates the alloy and impurity specification limits for ALPHA HiFlo Sn63Pb37 solder in relation to ASTM B32-04. The values are maximum limits unless otherwise indicated.

Element	ASTM B32-04	HiFlo Sn63Pb37
Sn	62.5 to 63.5	63.0 to 63.5
Pb	Balance	Balance
Sb	0.50 max	0.30 max
Cu	0.08 max	0.007 max
Au	N/A	0.005 max
Ag	0.015 max	0.005 max
Al	0.005 max	0.001 max
As	0.03 max	0.008 max
Bi	0.25 max	0.01 max
Cd	0.001 max	0.001 max
In	N/A	0.02 max
Fe	0.02 max	0.005 max
Ni	N/A	0.002 max
Zn	0.005 max	0.001 max
S	N/A	0.001 max
P	N/A	0.003 to 0.008

**AVAILABILITY**

ALPHA HiFlo Sn63Pb37 is provided in 1kg (2.2lb) Bar, Chunks, Feeder Ingots and Autofeed Wire.

**RECYCLING SERVICES**

We provide safe and efficient recycling services to help companies meet their environmental and legislative requirements and at the same time, maximize the value of their waste streams. Our service collects solder dross, solder scrap, and various forms of solder paste waste. Please contact your local sales representative for recycling capabilities in your area or [link here](#).



**SAFETY & WARNING**

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use. **Safety Data Sheets are available at [MacdermidAlpha.com/assembly-solutions/knowledge-base](http://MacdermidAlpha.com/assembly-solutions/knowledge-base).**

**CONTACT INFORMATION**

**To confirm this document is the most recent version, please contact [Assembly@MacDermidAlpha.com](mailto:Assembly@MacDermidAlpha.com)**

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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE. Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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