

ALPHA[®] HIFLO[®] SMG

Wave Solder Metal

DESCRIPTION

ALPHA HiFlo SMG is manufactured using ultra high purity raw materials and the alloy is conditioned using Alpha's proprietary viscosity and dross lowering treatments. This results in a pure, low drossing, high fluidity solder alloy, which is free of cast-in impurities and included oxides. Characteristics include very low dross, reduced skips, bridges and icling and fine pitch soldering. Ideal for densely populated boards, it enables increased production speeds and yield improvements, reduces solder pot maintenance.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

FEATURES & BENEFITS

- Increases Production Speed: which means lower product cost.
- Minimises Drossing: lowers downtime for maintenance and reduced solder consumption and cost.
- Reduces Bridging: lower amount of rework to higher yield, lowers cost and reduces chances of defects getting to consumer.
- Solders Densely Populated Boards: can be used on all your applications, you only need to stock one grade.
- Solders at a Lower Temperature: lower temperatures mean less oxide production and hence lower solder usage and cost.

APPLICATION GUIDELINES

ALPHA HiFlo SMG is the ideal companion product for all wave soldering systems including inert atmosphere equipment. HiFlo SMG is ideal for the following types of applications:

- High volume wave soldering processes.
- Applications requiring dual wave and chip wave systems.
- Boards that are densely populated.
- Fine pitch soldering.

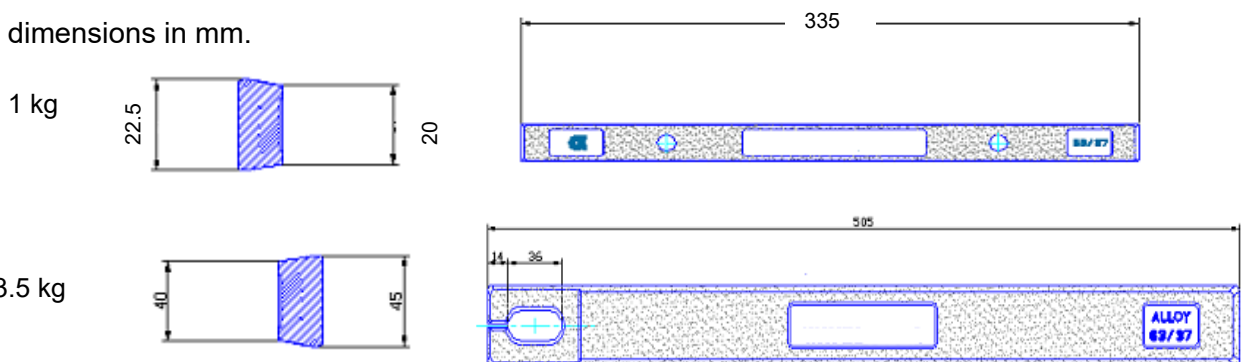
A solder pot temperature of 240 to 250 °C is recommended. For suitable wave solder fluxes, contact your local sales representative. Reclaim services including dedicated containers are also available. Please consult your local sales office.

AVAILABILITY

ALPHA HiFlo SMG is available in 3.5 kg feeder bars, 1 kg bars, and solder chunks for first fill of solder baths.

DIMENSIONS OF BARS

All dimensions in mm.



TECHNICAL SPECIFICATION

The following indicates the alloy and impurity limits for Hiflo SMG in relation to J-STD-006C, ISO9453, and JIS Z3282.

Element	Hiflo SMG	ISO9453 Sn63Pb37E	J-STD-006C	JIS Z3282 H63E
Sn	62.5 to 63.5	62.5 to 63.5	62.5 to 63.5	62.5 to 63.5
Pb	Balance	Balance	Balance	Balance
Sb	0.05 max	0.05 max	0.20 max	0.05 max
Cu	0.007 max	0.08 max	0.08 max	0.08 max
Zn	0.001 max	0.001 max	0.003 max	0.001 max
Fe	0.005 max	0.02 max	0.02 max	0.02 max

Element	Hiflo SMG	ISO9453 Sn63Pb37E	J-STD-006C	JIS Z3282 H63E
As	0.008 max	0.03 max	0.03 max	0.03 max
Ni	0.002 max	0.01 max	0.01 max	0.01 max
Bi	0.01 max	0.05 max	0.10 max	0.05 max
Cd	0.001 max	0.002 max	0.002 max	0.002 max
Ag	0.005 max	0.10 max	0.10 max	0.10 max
Al	0.001 max	0.001 max	0.005 max	0.001 max
In	0.02 max	0.10 max	0.10 max	0.10 max
Au	0.01 max	0.05 max	0.05 max	0.05 max

All figures are %

1. ISO 9453: 2006

Soft Soldering Alloys – chemical composition and form. ISO – International Standards Organization, a network of national standards institutes working in partnership.

2. J-STD-006C: July 2013

Requirements for Electronic Grade Solder alloys and non-fluxed solders. Joint Industry Standards between IPC and Electronic Industries Alliance (US Based). IPC formed in 1957 as an Institute of Printed Circuits, J-STD-006C supersedes J-STD-006B.

3. JIS Z3282: 2006

Soft solders chemical composition and forms. JIS – Japanese Industrial Standards.

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.**

CONTACT INFORMATION

To confirm this document is the most recent version, please contact Assembly@MacDermidAlpha.com

www.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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