ALPHA® HIFLO® SMG

Wave Solder Metal

DESCRIPTION

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 icicling and fine pitch soldering. Ideal for densely populated boards, it enables increased production speeds and yield improvements, reduces solder pot maintenance.

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

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 240-250° is recommended. For suitable wave solder fluxes, please see our selector guide. Reclaim services including dedicated containers are also available. Please consult your local sales office.

AVAILABILITY

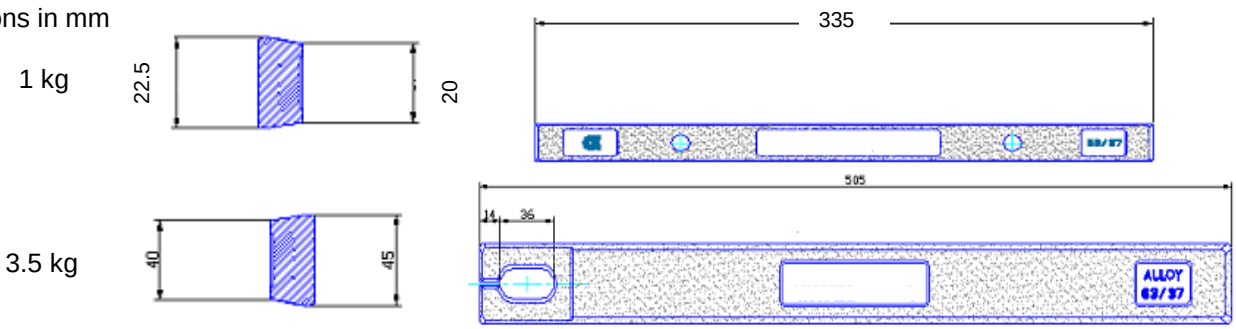
HiFlo is available in 3.5 kg feeder bars, 1 kg bars, and solder chunks for first fill of solder baths.

SAFETY

Please refer to MSDS for advice on proper handling and safety instructions.

DIMENSIONS OF BARS

All dimensions in mm



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an Alent plc Company

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TECHNICAL SPECIFICATION

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

ELEMENT	Hiflo SMG	ISO9453 Alloy 1A[1]	J-STD-006A Sn63Pb37C[2]	JIS Z3282A H63E[3]
Sn	62.5 – 63.5	62.5 – 63.5	62.5 – 63.5	62.5 – 63.5
Pb	Balance	Balance	Balance	Balance
Sb	0.05 max	0.05 max	0.05 max	0.05 max
Cu	0.005 max	0.05 max	0.08 max	0.05 max
Zn	0.001 max	0.001 max	0.003 max	0.001 max
Fe	0.001 max	0.02 max	0.02 max	0.02 max
As	0.005 max	0.03 max	0.03 max	0.03 max
Ni	0.002 max	Not specified	0.01 max	Not specified
Bi	0.005 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	Not specified	0.10 max	Not specified
Al	0.001 max	0.001 max	0.005 max	0.001 max
In	0.005 max	Not specified	0.10 max	Not specified

All figures are %

1. ISO 9453: 1990
   Soft Soldering Alloys – chemical composition and form. ISO – International Standards Organization, a network of national standards institutes working in partnership.

2. J-STD-006A: May 2001
   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-006A supersedes IPC-SF-818.

3. JIS Z3282: 1999
   Soft solders chemical composition and forms. JIS – Japanese Industrial Standards.