TECHNICAL BULLETIN

ALPHA FLUITIN 1532
No-Clean Cored Solder Wire

Type: J-STD-004 - ROM1 / IPC-SF-818 - M3CN / ISO 12224 - 1.1.2

GENERAL DESCRIPTION

Alpha Fluitin 1532 is an activated rosin cored solder wire developed for general hand soldering applications. The unique activator system offers good thermal stability at pre-soldering temperatures ensuring that Fluitin 1532 performs extremely well on parts and surfaces which present poor or difficult soldering conditions.

Fluitin 1532 leaves post-soldering residues that are hard and which can be safely left without the need to remove them. If the removal of residues is required, then semi-aqueous or aqueous systems can be used effectively.

FEATURES & BENEFITS

- Minimal, non-corrosive, clear and safe residues.
- Very fast wetting.
- Good spread characteristics.
- Pleasant pine smell.
- Ease of solderability.
- Provides good joint appearance.
- Available in 1.1%, 1.4%, & 2.2% flux contents.

TECHNICAL SPECIFICATION

Physical Properties	Typical Values
Rosin Grade:	WW per Fed Spec. LL-R-626
Rosin Softening Point:	71ºC (160ºF)
Acid Value:	170-190 (mg KOH/g)
Halide Content:	0.80 - 1.10% (by weight)
Corrosiveness:	Classified to J-STD-004 as M type material.
Copper Mirror:	Classified to J-STD-004 as<50% breakthrough.
Surface Insulation Resistance: (Not Cleaned)	Passes IPC-SF-818 Class III. Test results to J-STD-004 85ºC/ 85% RH / 7 days.
Surface Insulation Resistance: (Not Cleaned)	CD = 4.7E10 Ohms CU = 5.9E09 Ohms (pass >1E8 Ohms)
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Solder Alloys Available:

Standard	Alloy Designation	Melting or Solidus / Liquidus Temp ºC
ISO 9453 (1)	S-Sn63Pb37	183
ISO 9453 (2)	S-Sn60Pb40	183-190
ISO 9453 (3)	S-Sn50Pb50	183-215
ISO 9453 (5)	S-Pb60Sn40	183-235
ISO 9453 (22)	S-Sn50Pb32Cd18	145
ISO 9453 (25)	S-Sn60Pb38Cu2	183-190
ISO 9453 (26)	S-Sn50Pb49Cu1	183-215
ISO 9453 (30)	S-Sn62Pb36Ag2	178-190
ISO 9453 (34)	S-Pb93Sn5Ag2	296-301
ISO 9453 (23)	S-Sn99Cu1	231
ISO 9453 (24)	S-Sn97Cu3	230-250
ISO 9453 (29)	S-Sn97Ag3	221
Greenline www.lead-freesolders.com	SAC 305	215-218

APPLICATION GUIDELINES

Fluitin 1532 is suitable for use in any commercial no-clean hand soldering application that specifies compliance to J-STD-004 - ROM1 standard.

It is suited to such areas of industry (subject to the above criteria) as TV, Audio equipment, Video / DVD, games box and all types of household appliances.

European Headquarters
Cookson Electronics Assembly Materials
Tandem House, Marlowe Way
Beddington Farm Road, Croydon
CR0 4XS. England.
Tel: +44 (0)20 8665 6666
Fax: +44 (0)20 8665 4695
www.alphametals.com

Regional Offices:

Belgium:	Tel:	+32 (0) 14 44 50 00
France:	Tel:	+33 (0) 2 41 49 00 11
Germany:	Tel:	+49 (0) 203 55540
Ireland:	Tel:	+353 (0) 1 842 1172
Italy:	Tel:	+39 (0) 2 38 33 11
Hungary:	Tel:	+36 (0) 24 460 72 0
Netherlands:	Tel:	+31 (0) 35 695 5411

HINTS & TIPS ON SOLDERING IN GENERAL

Always remember that a soldered joint is formed by heating the parts to be soldered to a temperature in excess of the melting point of the alloy to be used - in hand soldering this is how a soldering iron is used. By feeding the cored wire onto the parts, the flux is able to flow and remove oxide films, whilst the solder creates a thin intermetallic bond which becomes the solder joint.

Note the following tips:

1. Use a soldering iron bit size and form to suit the operation: small bits for soldering large components may prevent the formation of a joint or slow the process down.
2. Always select wire diameters to suit both soldering iron bit and the parts/components to be soldered.
3. Soldering irons systems should provide sufficient heat to satisfy the requirements of 1 and 2 above.
4. Cored solder wires can be provided in different grades of alloy so always ensure you have selected the right grade for the application.
5. Do not overheat as this causes an increase in the depth of the intermetallic layer, which in turn weakens the joint.

All materials from Cookson Electronics Assembly Materials are manufactured to meet the most stringent of standards and to ensure the best possible finish to every soldering application.

TECHNICAL SUPPORT

For technical assistance and support:
North Europe: Tel: +44 (0) 20 8665 6666
Central Europe: Tel: +32 (0) 14 44 50 00
South Europe: Tel: +33 (0) 2 41 49 00 11

HEALTH & SAFETY

Observe standard precautions for handling and use. Use in well ventilated areas. DO NOT SMOKE.

Alpha Fluitin 1532 wire is not considered toxic. However, its use in typical soldering applications will generate a small amount of decomposition and fumes. These fumes **must** be adequately exhausted/vented for operator safety and comfort.

In order to carry out your full COSHH assessment, consult the product Material Safety Data Sheet (MSDS).

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