ALPHA® FLUITIN 1532

No Clean, Flux Cored, Wire Solder

J-STD-004 - ROM1 / IPC-TM-650 2.6.3.3 / ISO 12224 – 1.1.2 / DIN 8511-F-SW26

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.

ALPHA® 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

- *Very fast wetting* → *Low Cycle times for component touch-up and manual assembly*
- *Good spread characteristics* → *Excellent Solder Joints*
- *Pleasant pine smell* → *Operator Friendly*
- *Clear and safe residue* → *No-Clean Residues, Useful for all Applications*
- *Provides good joint appearance* → *Makes Inspection easy*

ALPHA® 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.

PRODUCT INFORMATION

Standard	Alloy Designation	Melting or Solidus / Liquidus Temp °C	Flux Amount
ISO 9453	SAC305	217 - 221	2.2% & 3.3%
Proprietary	SACX Plus® 0307	217 - 228	2.2% & 3.3%
ISO 9453	Sn99/Cu1	227	2.2% & 3.3%
ISO 9453	Sn50/Pb50	183 - 216	2.2%
ISO 9453	Sn60/Pb40	183 - 190	1.4% & 2.2%
ISO 9453	Sn60/Pb38/Cu2	183 - 190	1.1% & 2.2%
ISO 9453	Sn62/Pb36/Ag2	178 - 190	2.2%
ISO 9453	Sn63/Pb37	183	1.1% & 2.2%

** Fluitin 1532 may also be available in other alloys and flux amounts on request.*

TECHNICAL DATA

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 flux (IPC-TM-650-2.3.13)
Halide Content:	0.80 – 1.10% weight (IPC-TM-650-2.3.28.1)
Copper Mirror:	<50% breakthrough per IPC J-STD-004A
Classification:	ROM1 per IPC J-STD-004A ISO 12224 – 1.1.2. Din 8511 – F – SW26

Electrical Reliability Test	Requirements	Results
IPC SIR Testing (J-STD-004A)	1.0×10^8 Ω minimum	PASS

APPLICATION

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 oxidized metal, while the solder creates a thin inter-metallic bond which becomes the solder joint. Fluitin 1532 is also ideal for robotic soldering applications.

Note the following tips:

- Use a soldering iron tip size and form to suit the operation: small tips for soldering large components may prevent the formation of a joint or slow the process down.
- Select a solder wire diameter to suit both the soldering iron tip and the parts/components to be soldered.
- Soldering iron systems should provide sufficient heat to satisfy the requirements of the points above.
- A typical solder tip temperature would be between 120°C and 160°C above the liquidus temperature of the alloy. The ideal temperature to use is dependant on how thermally demanding the assembly is.
- Cored solder wires can be provided in different grades of alloy so always ensures that you have selected the right grade for the application.
- Do not overheat as this causes an increase in the depth of the inter-metallic layer, which in turn weakens the joint.

If you choose to use a liquid rework flux, ALPHA 615 Flux is recommended to maintain high electrical reliability. 615 flux is available in Alpha's 'Write Flux Pens' for precision flux application.

SAFETY

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

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 should be adequately exhausted / vented for operator safety and comfort.

STORAGE

ALPHA Cored Solder Wires should be stored in dry conditions and within a temperature range of 0°C to 40°C. When stored under these conditions the product shelf life is indefinite. However, Alpha guarantees the product shelf life for three years from the date of manufacture when stored in dry conditions and within 0°C to 40°C.