

Solder Wires

60 / 40 Alloy Rosin Flux



Features:

- Good wetting on most common surfaces
- Two activity levels: Multicomp 362 for general work and Multicomp 366 for more difficult surfaces
- Non-corrosive
- Fast soldering
- Rosin based
- Halide activated

Product Range

Multicomp 362 and 366 cored wires are manufactured with a range of flux contents. Although users will normally be using products with a nominal flux content of 3%

Multicomp 362 and 366 cored wires are available in a variety of alloys conforming to J-STD-006 and EN 29453 or alloys conforming to similar national or international standards. For details refer to document "Properties of Alloys used in Cored Solder Wires". A wide range of wire diameters is available

Alternative flux contents and alloys may be manufactured to special order

Technical Specification

A full description of test methods and detailed test results are available on request

Alloys

The alloys used for Multicomp flux cored solder wires conform to the purity requirements of the common national and international standards. A wide range of wire diameters is available manufactured to close dimensional tolerances

Flux

Multicomp 362 and 366 solid flux leave dry and non-sticky residues. In use its odour is typically that of rosin fluxes

Typical Flux Properties		
Test	362	366
Acid Value	170 mgKOH / g	158 mgKOH / g
Halide Content	<0.5%	1%
SIR Test (Without Cleaning) J-STD-004	Pass	Pass
Classification J-STD-004 EN29451-1	ROL1 1.1.2	ROM1 1.1.2

Special Properties

Surface Insulation Resistance

Surface Insulation Resistance : Multicomp 362 and 366 flux pass the J-STD-004 SIR test and other elements of J-STD-004 test protocols associated with the flux classification ROL1 for 362 and ROM1 for 366

Electro migration Test : Multicomp 362 and 366 pass the Bell core GR-78-CORE Electro migration test

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Recommended Operating Conditions

Soldering Iron

Good results should be obtained using a range of tip temperatures. However, the optimum tip temperature and heat capacity required for a hand soldering process is a function of both soldering iron design and the nature of the task and care should be exercised to avoid unnecessarily high tip temperatures for excessive times. A high tip temperature will increase any tendency to flux spitting and it may produce some residue darkening.

The soldering iron tip should be properly tinned and this may be achieved using Multicomp cored wire. Severely contaminated soldering iron tips should first be cleaned and pre-tinned using Multicomp Tip Tinner / Cleaner TTC1, then wiped on a clean, damp sponge before re-tinning with Multicomp cored wire.

Soldering Process

Multicomp cored wires contain a careful balance of resins and activators to provide clear residues, maximum activity and high residue reliability, without cleaning in most situations. To achieve the best results from Multicomp solder wires, recommended working practices for hand soldering should be observed as follows:

- Apply the soldering iron tip to the work surface, ensuring that it simultaneously contacts the base material and the component termination to heat both surfaces adequately. This process should only take a fraction of a second.
- Apply Multicomp flux cored solder wire to a part of the joint surface away from the soldering iron and allow to flow sufficiently to form a sound joint fillet-this should be virtually instantaneous. Do not apply excessive solder or heat to the joint as this may result in dull, gritty fillets and excessive or darkened flux residues.
- Remove solder wire from the work piece and then remove the iron tip.

The total process will be very rapid, depending upon thermal mass, tip temperature and configuration and the solderability of the surfaces to be joined.

Multicomp flux cored solder wires provide fast soldering on copper and brass surfaces as well as solder coated materials. Activity of the halide activated versions on nickel is also good depending on the state of oxidation of the nickel finish. The good thermal stability of Multicomp fluxes means they are also well suited to soldering applications requiring high melting temperature alloys.

Cleaning

Multicomp 362 and 366 cored solder wires have been formulated to leave pale flux residues and to resist spilling and fuming. Cleaning will not be required in most situations but if necessary this is best achieved using Multicomp MCF800 Cleaner. Other proprietary solvent or semi-aqueous processes may be suitable. Specification may be viable but customers must ensure that the desired level of cleanliness can be achieved by their chosen system.

Health and Safety

Warning

The following information is for guidance only.

Health Hazards and Precautions: Inhalation of the flux fumes given off during soldering should be avoided. The fumes are irritating to the throat and respiratory system. Prolonged or repeated exposure to rosin or modified rosin based flux fumes may lead to the development of respiratory sensitisation and occupational asthma.

Multicomp solder wires must always be used with suitable fume extraction equipment to remove fumes from the breathing zone of operators and the general work environment.

Solder alloys containing lead give off negligible fume at normal soldering temperatures up to 500°C.

Normal handling of lead alloy wires will not cause lead to be absorbed through the skin. The most likely route of entry is through ingestion but this will not be significant if a good standard of personal hygiene is maintained. Eating, drinking and smoking should not be permitted in the working area. Hands should be washed with soap and warm water after handling solder wire.

Waste disposal

Wherever possible, waste solder wire should be recycled for recovery of metal. Otherwise it should be disposed of according to local or national regulations.

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Part Number Table

Description	Part Number
Solder Wire, 60/40, 0.5 mm, 250 G	507-1057
Solder Wire, 60/40, 0.7 mm, 250 G	507-1069
Solder Wire, 60/40, 0.9 mm, 250 G	507-1070
Solder Wire, 60/40, 1.2 mm, 250 G	507-1082
Solder Wire, 60/40, 0.7 mm, 500 G	507-1100
Solder Wire, 60/40, 0.9 mm, 500 G	507-1112
Solder Wire, 60/40, 1.2 mm, 500 G	507-1124

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