



## General purpose, halide free and lead-free no-clean solder wire

### Description:

Interflux<sup>®</sup> **Flexsol 903** for lead-free alloys is an absolutely halogen free general purpose no-clean solder wire for standard hand soldering operations like rework an repair.

The solder wire exhibits good wetting on the conventional surfaces to be soldered in combination with low spattering.

It is available in different flux contents. The 2,2% flux content version is being used for SMD soldering, normal through hole soldering or when low residue formation after soldering is desired. The 3,5% flux content version is used for heavy thermal mass through hole soldering or when soldering time needs to be optimized.

Flexsol 903 is classified as R0 L0 according IPC and EN standards.



Products pictured may differ from the product delivered

## Availability

|   |   |                                |      |      |      |      |      |      |
|---|---|--------------------------------|------|------|------|------|------|------|
| Flux type:                                    | Flexsol 903                             |                                |      |      |      |      |      |      |
| Flux content:                                 | 2,2% and 3,5% w/w (1,6% for 0,2mm only) |                                |      |      |      |      |      |      |
|   |   | diameters (mm)                 |      |      |      |      |      |      |
|   |   | 0,2                            | 0,35 | 0,50 | 0,70 | 1,00 | 1,50 | 2,00 |
| alloy   | melting point                           |                                |      |      |      |      |      |      |
| Sn96,5Ag3,0Cu0,5                              | ~217°C                                  | ●                              | ●    | ●    | ●    | ●    | ●    | ●    |
| Sn99Ag0,3Cu0,7                                | ~217°C—227°C                            |                                | ●    | ●    | ●    | ●    | ●    | ●    |
| Sn99,3Cu0,7                                   | ~227°C                                  |                                | ●    | ●    | ●    | ●    | ●    | ●    |
| Note: other alloys and diameters upon request |   | ● = available ● = upon request |      |      |      |      |      |      |

## Key properties

- General purpose hand soldering wire
- Good wetting
- Low spattering
- Different flux contents for different requirements
- Absolutely halogen free





## Work Instructions

### **Manual soldering**

The advised working temperature is between 320°C and 390°C. For more dense metals like Nickel, the temperature may be elevated to 420°C. The use of a good soldering station is important. Use a soldering station with a short response time and with enough power for your application. Choose the correct soldering tip: to reduce the thermal resistance, it is important to create a large contact area with the surfaces to be soldered. Heat up both the surfaces simultaneously. Slightly touch with the solder wire, the point where soldering tip and the surfaces to be soldered meet (the small quantity of solder ensures a drastic lowering of the thermal resistance). Add subsequently without interruption, the correct amount of solder close to the soldering tip without touching the tip. This will reduce the risk on flux spitting and premature flux consumption.

## Handling

### **Storage**

Store the solder wire in a clean environment at ambient temperature.

### **Handling**

To avoid spool and wire damage, handle package with care.

### **Safety**

Please always consult the safety datasheet of the product.

## Packaging

The standard packaging is as follows:

For 0,2mm: spool of 10g

For 0,35mm: spool of 100g

For all other diameters: spool of 500g

Other spool sizes upon request



**Test results**

Conform EN 61190-1-3(2007) and IPC J-STD-004

| Property                       | Result         | Method                          |
|--------------------------------|----------------|---------------------------------|
| <b>Chemical</b>                |                |                                 |
| flux designator                | <b>RO L0</b>   | J-STD-004A                      |
|                                | <b>F-SW 32</b> | DIN 8511                        |
|                                | <b>1.1.3</b>   | ISO 9454                        |
| qualitative copper mirror      | <b>pass</b>    | J-STD-004A IPC-TM-650 2.3.32    |
|                                | <b>pass</b>    | TR-TSY-000078 13.1.6            |
| qualitative halide             |                |                                 |
| silver chromate (Cl, Br)       | <b>pass</b>    | J-STD-004A IPC-TM-650 2.3.33D   |
|                                | <b>pass</b>    | TR-TSY-000078 13.1.4            |
| spot test (F)                  | <b>pass</b>    | J-STD-004A IPC-TM-650 2.3.35.1A |
|                                | <b>pass</b>    | TR-TSY-000078 13.1.5            |
| quantitative halide            | <b>0,00%</b>   | J-STD-004A IPC-TM-650 2.3.35C   |
| <b>Environmental</b>           |                |                                 |
| SIR test                       | <b>pass</b>    | J-STD-004B IPC-TM-650 2.6.3.7   |
| electrochemical migration test | <b>pass</b>    | J-STD-004B IPC-TM-650 2.6.14.1  |
| qualitative corrosion, flux    | <b>pass</b>    | J-STD-004A IPC-TM-650 2.6.15C   |

Trade name: Flexsol 903 Lead-Free, Halide Free, No-Clean Solder Wire

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