



No-clean low residue soldering flux for selective fluxing applications

Description:

IF 8001 is a no-clean soldering flux with low residue formation, developed for selective fluxing applications.

The flux is compatible with lead-free and SnPb alloys.

Typical processes where IF 8001 can be used are hand soldering, rework and repair, automated soldering, and stamp soldering. IF 8001 can also be used for SnPb BGA rework.

The flux has not been developed for selective wave applications.

IF 8001 is absolutely halogen free, guaranteeing a high reliability after soldering.

When the flux is selectively applied in the right quantity on the surfaces to be soldered, there is almost no residue left after soldering.



Products pictured may differ from the product delivered



Key properties

- Clean solder joints
- Wide range of use
- Wide process window
- Compatible with both lead-free and SnPb alloys
- Absolutely halogen free

Physical and chemical properties

Density at 20°C	0,850 g/ml ± 0.01
Colour	Light yellow
Odour	Aliphatic Alcohol
Solid content	8,55%
Halide content	None
Flash point (T.O.C)	13°C (55°F)
Total Acid Number	67,5 mg KOH/g
IPC/ EN	RE LO



Applying the flux

The flux can be applied by brush, by spraying, dipping...It is advisable to apply the flux on the surfaces to be soldered only. An easy way of doing this is by using a flux pen with glass fibre tip. In general, it should be the goal to apply just enough flux in order to minimize residue formation after the soldering process. This is being done by trial and error because each process has different parameters, determining the required minimum flux amount. Minimize the flux amount gradually until soldering defects like non wetting, orange skin, etc... appear. Raise the flux amount till the problems disappear.

Preheating

In general a preheating is used to limit the temperature shock and to evaporate the solvent of the flux. IF 8001 doesn't require a preheating. If possible, it is advisable to have the alcohol evaporated before going to soldering temperatures.

Soldering

Regardless of the used soldering technique, it is always important to know the physical limitations of the components and base materials to be soldered and to adapt the soldering profile to these limitations.

Hand soldering : For Sn(Ag)Cu alloys, the advised working temperature is between 320°C and 390°C. For SnPb(Ag) alloys, this is between 320°C and 360°C. For more dense metals like Nickel, the temperature may be elevated. Choose the correct soldering tip: to reduce the thermal resistance, it is important to create a large contact surface with the component and solder pad. The use of a good soldering station is important in order to always have the correct temperature on the soldering joint. Use a soldering station with a response time as short as possible. Heat up the surfaces of both component and island simultaneously. Slightly touch with the solder wire, the point where component lead, soldering island and soldering tip 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. Using Interflux[®] Tip Tinner can prolong soldering tip life.

IF 8001 can be used for **reflow soldering** of an SnPb(Ag) BGA, mainly for rework and repair. For lead-free BGAs, IF 6000 is recommended. However in general for soldering BGAs, the gel flux IF 8300 is most commonly used. The used soldering profile will mainly be determined by the used soldering alloy and the physical properties and limitations of the materials to be soldered. The use of nitrogen is not necessary but always advisable. Reducing atmospheres like nitrogen/hydrogen are possible.



Test results

conform EN 61190-1-1(2002) and IPC J-STD-004A

Property	Result	Method
Chemical		
Flux designator	RE LO	J-STD-004A
Qualitative copper mirror	pass	J-STD-004A IPC-TM-650 2.3.32
Qualitative halide		
Silver chromate (Cl, Br)	pass	J-STD-004A IPC-TM-650 2.3.33
Quantitative halide	0,00%	J-STD-004A IPC-TM-650 2.3.35
Environmental		
SIR test	pass	J-STD-004A IPC-TM-650 2.6.3.3
Qualitative corrosion, flux	pass	J-STD-004A IPC-TM-650 2.6.15

Safety

IF 8001 is flammable. Please always consult the safety datasheet of the product.



Packaging

IF 8001 is available in the following packages:

Refillable and non refillable flux pen

100ml, 0,5L and 1L HDPE bottle

10L and 25L HDPE drums

Other packaging available upon request.

Trade name : IF 8001 No-Clean Soldering Flux for Selective Fluxing Applications

Disclaimer

Because Interflux[®] Electronics N.V. cannot anticipate or control the many different conditions under which this information and our products may be used, we do not guarantee the applicability or the accuracy of this information or the suitability of our products in any given situation. Users of our products should make their own test to determine the suitability of each such product for their particular purposes. The product discussed is sold without such warranty, either express or implied.

Copyright:

INTERFLUX[®] ELECTRONICS N.V.

**Latest version of this
document on:**

www.interflux.com

