RoHS compliant 2002/95/EC

Alcohol based, no-clean and halide free soldering flux.

Description:

AF 4818 PbF is a no-clean soldering flux based on a modified rosin in a special solvent vehicle.

AF 4818 PbF is suitable for lead -free and SnPb alloys.

The flux is absolutely halogen free, guaranteeing a high reliability after soldering.

The residue left on the board by **AF 4818 PbF** is minimal, non hygroscopic and possesses high surface insulation resistance thus making it particularly suitable for no-clean, high reliability applications like telecommunication, computer, medical etc,...

Physical and chemical properties:

Density at 20°C	:	0,798 g/ml ± 0.01
Colour	:	Clear Amber
Odour	:	Alcohol
Solid content	:	5%
Halide content	:	0,00%
Flash point (T.O.C)	:	17°C (62°F)
Total Acid Number	:	19,0 mg KOH/g ± 2
IPC/ EN	:	RO L0

More information:

Key advantages:

- reduced bridging
- Inhibits solder balling
- Wide process window
- Suitable for both SnPb and lead-free alloys
- Absolutely halogen free

Applying the flux

Due to its wide range of use, there are many possible ways of applying the flux.

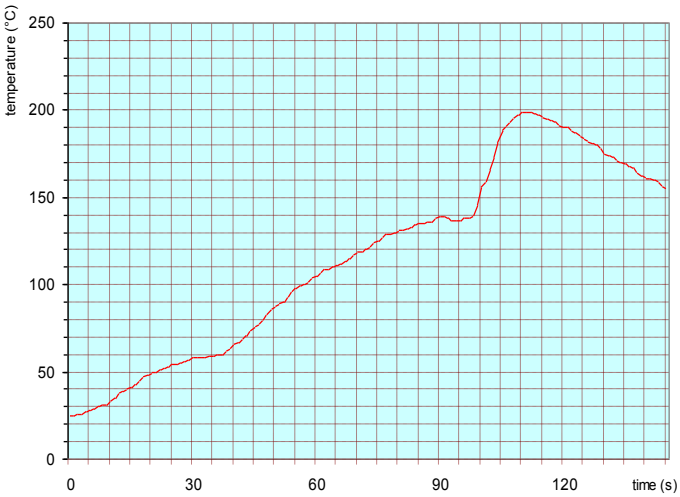
The flux can be applied by brush, by spraying and dipping.

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 case has different parameters which determine the required minimum flux amount. Minimize the flux amount gradually untill soldering defects like non wetting, orange skin,etc... Appear. Raise the amount again till the problems disappear.

Preheating and Profile

The recommended preheat T° is: 80°C - 160°C. This value is retrieved from field experience. The flux can have lower preheat T° as long as the solvent is evaporated before wave contact. Preheat T° above 150°C are to be kept as short as possible in order to prevent flux exhaustion. If possible, avoid hot air preheat settings above 150°C. Always take into account the physical properties of the board, components and soldering application in order to get an optimal final result .

Slope: 1-3°C/s



T° measured on the topside of the PCB on a lead-free soldering machine.

Wave contact

In selective soldering the wave contact is mostly determined by good through hole wetting. This is influenced by the preheating, the thermal mass of PCB and component, the wettability of the finishes, the solidification point of the used alloy and the working temperature. Typical contact times are between 1s and 2s. In wave soldering the same considerations apply, but other parameters like wave type, carriers, board design, nitrogen,... are important.

Typical contact times are between 2s and 4s.

Test results

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

Property	Result	Method
Chemical		
Flux designator	**RO L0**	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

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Safety

AF 4818 PbF is a highly flammable product and should be treated accordingly. Please consult the material safety datasheet SDS for more information.

Packaging:

AF 4818 PbF is available in the following packages:

1L bottles

10 litres polyethylene drums

25 litres polyethylene drums

Trade name : AF 4818 PbF Soldering Flux

For the latest version of this document please consult:

www.**interflux.com**