



Low VOC soldering flux IF 3006

INTERFLUX®
ELECTRONICS N.V.



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Low VOC, No-clean soldering flux

Description:

IF 3006 is a no-clean, halide free soldering flux with a reduced VOC content. It can be used in lead-free and lead bearing applications. It provides good solderability on all finishes.

Advantages of a low VOC flux

Because of the lower vapor pressure no adjustment of the flux is needed, even in foam applications. The emissions of VOC's may be reduced to 60% of the values of alcohol based fluxes, while maintaining solvent power for excellent through hole wetting.

IF 3006 produces high first pass yield in ICT because of its bodiless technology.



Physical and chemical properties:

Density at 20°C	: 0,865 g/ml ± 0,015
Colour	: Clear, colourless
Odour	: alcohol
Solid content	: 3,2% ± 0,4
Water content	: +/- 25%
Halide content	: none
Flash point (T.C.C)	: 41°C
Total Acid Number	: 26 mg KOH/g ± 2
IPC/ EN	OR/ L0

Why Low VOC?

- ▶ High Quality: high first pass ICT yield—bodiless technology
- ▶ Low Volatile Organic Compounds emission caused by flux evaporation
- ▶ A reduction of circa 30% in flux consumption compared to alcohol based fluxes
- ▶ No more use of flux thinner
- ▶ No checking of flux quality needed

Key advantages:

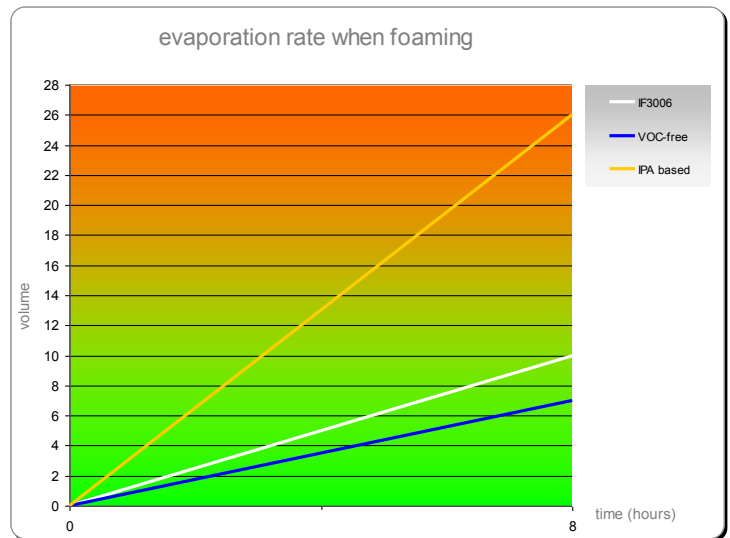
- Absolute halide free
- Reduced VOC
- Resists high temperatures
- Wide process window
- Improved through hole filling
- Suitable for spray, foam and dip fluxing

Evaporation stability

The evaporation will increase during the foaming operation. The graph on the right shows the different flux types and their evaporated volume during a continuous foaming operation without passing boards.

The graph shows that for most flux types the evaporation during foaming is similar compared to static

evaporation except for the evaporated volume, which is much higher in the same time frame.



Preheating

The solvents should be evaporated from the boards before hitting the wave.

The recommended preheat temperature measured on the top-side of the boards is 80°C-160°C.

Avoid hot air preheating settings above 150°C

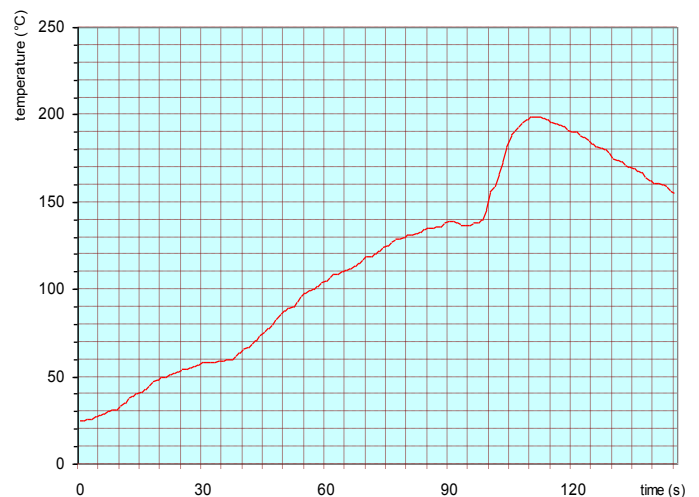
Preheat slope:
 typical: 1,5°C/s
 min: 1,0°C/s
 max: 2,5°C/s

“The solvents should be evaporated before hitting the wave”

Wave contact

Typical wave contact or dwell time value in wave soldering is 3-4s when using a single solder wave. For double wave soldering systems the values will be 1-2s for the first wave and 2-4s for the second wave. Lower total dwell time

limit is 2s. Solder wetting can be optimal at low contact times however longer contact times are recommended to provide total flux wash off from the boards. The maximum upper limit will be determined by the level of shorts and



physical limitations of the board and components.



Test results

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

Property	Result	Method
Chemical		
Flux designator	OR 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
Qualitative corrosion, flux	pass	J-STD-004A IPC-TM-650 2.6.15

Packaging:

IF 3006 is available in the following packages:

- 10 litres polyethylene drums
- 25 litres polyethylene drums
- 200 litres polyethylene drums

Trade name : IF 3006 Low VOC No-Clean Soldering Flux

D i s c l i m e r

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