VOC free soldering flux PacIFic **2011F**

INTERFLUX® ELECTRONICS N.V.

Technical data PacIFic 2011F

Ver: 3.01 30-06-14

RoHS compliant 2002/95/EC

VOC free, no-clean and halide free soldering flux for foam and spray applications

Description:

The Interflux® PacIFic **2011F** is an environmentally friendly, water based flux without any volatile organic compounds (VOC free). The flux is also absolutely halogen free.

PacIFic **2011F** can be applied by means of foam, spray or dip fluxing.

The flux does not contain rosins nor resins, giving very low ICT contact problem faults.

PacIFic **2011F** has very good wetting and soldering capacity on all popular board finishes and is suitable for soldering with normal SnPb, lead-free alloys and for components and PCB-finishes with critical solder ability.

The flux allows an easy change-over from alcohol based fluxes to water based fluxes.

Products pictured may differ from the product delivered

Physical and chemical properties:

Density at 20°C	:	1.00 g/ml ± 0.01
Colour	:	clear
Odour	:	sweet
Solid content	:	3.6% ± 0.2
Halide content	:	0,00%
Flash point (T.O.C)	:	none
Total Acid Number	:	25 mg KOH/g ± 2
IPC/ EN	:	OR/ L0

Why VOC-free?

- ► No risk of fire caused by flux inflammation
- ► No Volatile Organic Compounds emission caused by flux evaporation
- ► No irritating alcohol smell in your production caused by flux evaporation
- ► No use of flux thinner
- ► No checking of flux solid content needed
- ► Improvement in solder ability and cleanliness
- ► Lower flux transport, storage and insurance costs
- ► A reduction of circa 30% in flux consumption

More information:

Key advantages:

- Absolute halide free
- 100% water based
- Resists high temperatures
- Practically odourless
- Improved through hole filling
- Reduced solder ball formation after soldering
- No ICT problems

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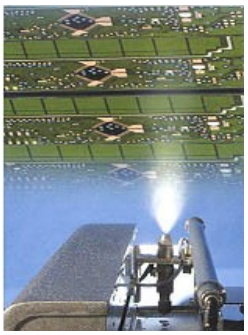
Applying the flux by spray

The PacIFic 2011F can be applied by means of a spray fluxing unit. It is advised to use a double spray stroke during fluxing, whenever possible and to keep the flux pressure low. The nozzle traverse speed is set to a value which ensures that every point on the board is sprayed twice, once from each side. When this condition is met the result is a 50% overlap on the spray pattern. This will give the most uniform spray pattern coverage. Additionally the spray fluxer settings need to be checked by passing a glass plate or empty circuit board through the fluxer. There may be no drops present. Drops are a sign of excessive flux and are difficult to evaporate. Reduce the flux amount until defects typical for a too low flux amount like, webbing, flagging, shorts and icicles are observed. From this point increase the flux level again until defects disappear.

solids (dry matter)	Min.	Max.
µg/ cm²	60	140
µg/ in²	400	900



"a 50% overlap will give the most uniform spray pattern..."

Applying the flux by foam

The PacIFic 2011F can be applied by foam. Start with a clean foam stone in a clean fluxer unit. The flux level should be about 5 cm over the top of the foam stone. Increase the air pressure until you get a fine lineair bubble formation on the top of the foam nozzle.
Always use an airknife to eliminate drop formation between SMD components.

After intensive use there can be a formation of some thick foam on the top of the flux that does not disappear. This is an indication to change the flux.

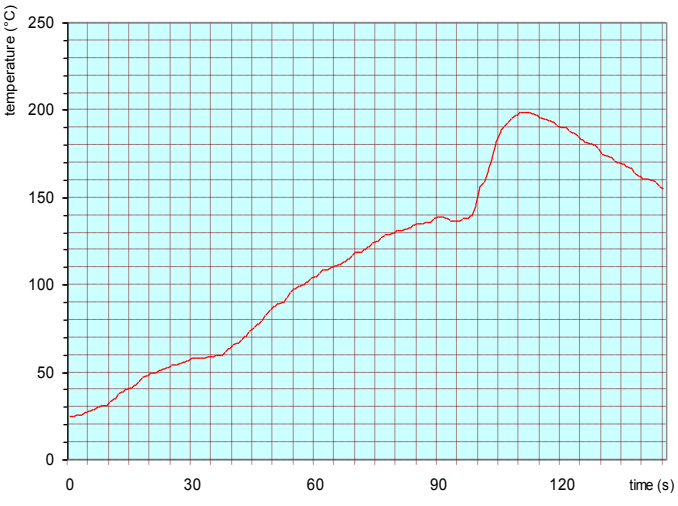
Preheating

The recommended preheat temperature measured on the topside of the boards is 80-160°C. This value is retrieved from field experience. All water should be evaporated from the boards before hitting the wave.

Avoid hot air convection preheater settings above 150°C.

Preheat slope: 1-3°C/s

"All water should be evaporated before hitting the wave"



Wave contact

Typical wave contact or dwell time value 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 lower contact times. 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 the 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		J-STD-004A IPC-TM-650 2.6.3.3
Qualitative corrosion, flux	**pass**	J-STD-004A IPC-TM-650 2.6.15

Packaging:

PacIFic 2011F is available in the following packages:

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

Trade name : PacIFic 2011F VOC-Free No-Clean Soldering Flux

D i s c l a i m e r

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