



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

### Description:

The Interflux<sup>®</sup> **PacFic 2009M** is an environmental friendly flux especially developed without the use of any volatile organic compounds.

The flux does not contain any halides, neither rosins nor resins. The absence of rosin and resin will give very low ICT contact problem faults.

PacFic 2009M has very good wetting capacity and excellent soldering on all popular board finishes. It is suitable for soldering with normal SnPb and lead-free alloys and for components and PCB-finishes with critical solderability.

PacFic 2009M allows a change-over from alcohol based fluxes to water based fluxes with absolutely no disadvantages.



*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 (activity)	: 3,7 % ± 0,15
Halide content	: 0,00 %
Flash point (T.C.C)	: n.a.
Total Acid Number	: 25 mg KOH/g ± 2
IPC/ EN	: OR/ LO



### Key properties

- Absolutely halide free
- 100% water based
- Resists high temperatures
- Practically odourless
- Improved through hole filling
- High compatibility with conformal coatings

### Why VOC-free?

- No risk of fire caused by flux ignition
- No Volatile Organic Compounds (VOC) emission caused by flux evaporation
- No alcohol smell in the production area caused by flux evaporation
- No use of flux thinner
- No need for monitoring of flux solid content
- Lower flux transport, storage and insurance costs
- A general reduction of flux consumption up to 30%



## Applying the flux

The PacIFic 2009M is designed to 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 air pressure low enough to avoid flux being forced in between the PCB and soldering carrier. The nozzle traverse speed should be set to a value which ensures that every point on the board(s) is being sprayed twice, once from each side. This results in a 50% overlap on the spray pattern. This will give the most uniform spray pattern coverage. Spray pattern coverage can be checked by passing a piece of cardboard through the spray fluxer and removing it before it reaches the preheating. Check spray volume by passing a glass plate or empty circuit board through the fluxer and remove it from the machine before it reaches the preheating. There may be no drops present. Drops are a sign of excessive flux and are difficult to evaporate. To start, it is advisable to reduce the flux amount with about 30% compared to most alcohol based fluxes. 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.

## Preheating

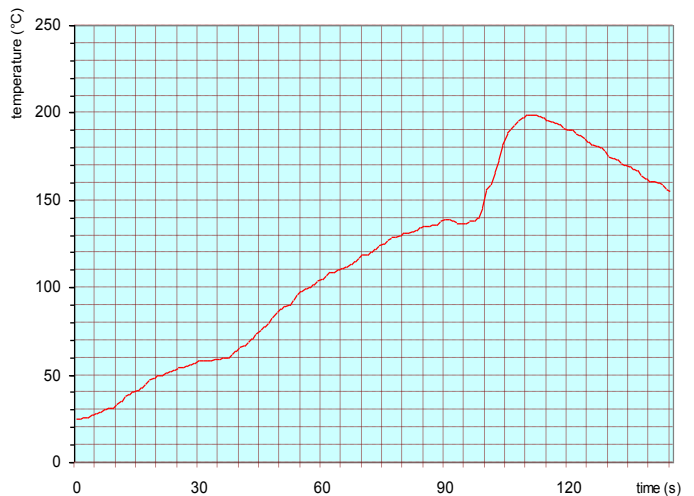
The recommended preheat temperature measured on the topside of the boards is 80°C-160°C.

All water should be evaporated from the boards before hitting the wave.

Hot air convection preheating facilitates water evaporation but it is advisable to avoid settings above 150°C when possible.

Preheat slope:

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



*Example of a measured preheating profile*

## Wave contact

Typical wave contact or dwell time value is 3-4s when using a single solder wave. For double wave soldering systems typical values are 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 however longer contact times facilitate total flux wash off from the boards. The maximum upper limit will be determined by flux exhaustion and physical limitations of the board and components. Indications for flux exhaustion are bridging, icicling, webbing,...



## Test results

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

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

## Safety

Please always consult the safety datasheet.



## Packaging

PacFic 2009M is available in the following packages:

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

Trade name : PacFic 2009M VOC-Free No-Clean Soldering Flux

### Disclaimer

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