



VOC free soldering flux PacIFic **2009M**

INTERFLUX®
ELECTRONICS N.V.



Technical data PacIFic 2009M

Ver: 3.0 05-11-13

Page 1

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

Description:

The Interflux® PacIFic **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.

PacIFic **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.

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

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 quality needed
- ▶ Improvement in solder ability and cleanliness
- ▶ Lower flux transport, storage and insurance costs
- ▶ A reduction of about 30% in flux consumption



Physical and chemical properties:

Density at 20°C	: 1.00 g/ml ± 0.01
Colour	: clear
Odour	: sweet
Solid content	: 3.7% ± 0.15
Halide content	: 0,00%
Flash point (T.O.C)	: n.a.
Total Acid Number	: 25 mg KOH/g ± 2
IPC/ EN	: OR/ L0



More information:

<i>Applying the flux</i>	2
<i>Preheating</i>	2
<i>Wave contact</i>	2
<i>Test results</i>	3
<i>Packaging</i>	3

Key advantages:

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



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 pressure low. The nozzle traverse speed is set to a value which ensures that every point on the boards are sprayed twice from two different sides.

When this condition is met the result is 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. Remove it before it reaches the pre heat unit. Additionally the spray fluxer settings need to be

checked by passing a glass plate or empty circuit board through the fluxer. Remove it from the machine before it reaches the pre heater unit and is checked on flux quantity. 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 an alcohol based flux. 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.

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

solids (dry matter)	Min.	Max.
µg/ cm ²	60	140
µg/ in ²	400	900

Typical amount of flux solids applied when spray fluxing

Preheating

The recommended preheat temperature measured on the top-side of the boards is 85°C-160°C.

Providing that all water should be evaporated from the boards before hitting the wave.

Avoid hot air convection preheating settings above 150°C

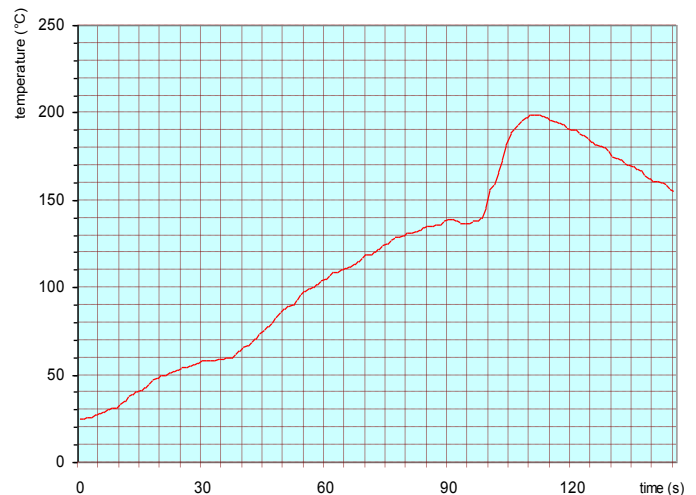
Preheat slope:
typical: 1,5°C/s
min: 1,0°C/s
max: 2,5°C/s

“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 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:

PacIFic 2009M is available in the following packages:

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

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

D i s c l a i m e r

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