



# Soldering Flux OSPI 3311

INTERFLUX®  
ELECTRONICS N.V.



Technical data OSPI 3311

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## No-clean soldering flux for OSP

### Description:

Interflux® **OSPI 3311** is a no-clean flux that especially has been developed for soldering **OSP-boards** that have passed one or more reflow processes.

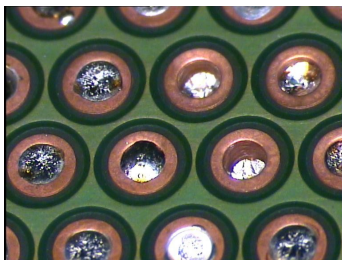
Most OSP-finishings will degrade quickly after reflow, making (through hole) wetting in wave or selective soldering a challenge, especially with lead-free alloys.

The elements of **OSPI 3311** have been carefully chosen to promote (through hole) **wetting** on these degraded OSPs, even with **high conveyor speeds**.

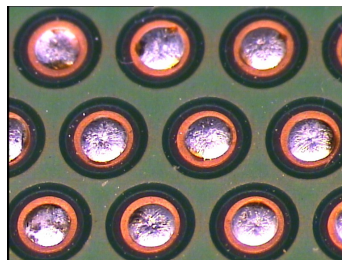
Moreover, the flux is absolutely halogen free and has been designed to be safe and reliable.

**OSPI 3311** meets IPC requirements.

## Through hole wetting



**Standard Flux**



**OSPI 3311**

OSP boards soldered with 1,6m/min on a SnCu solder bath after 2x reflow and 24hrs.



Products pictured may differ from the product delivered

### Physical and chemical properties

Appearance	Clear colourless liquid
Solid content	7% +/- 1%
Density at 20°C	0.823 g/ml ±0.005
Acid number	50-70 mg KOH/g
Odour	Alcohol
IPC/EN	OR/L0



**RoHS**  
compliant  
2002/95/EC

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### Key advantages:

- Very good wetting on degraded OSP
- High conveyor speeds possible
- Absolutely halogen free
- For SnPb and lead-free alloys



## Flux application

There are different ways of applying flux : spray, foam, immersion,...

When spray fluxing, it is important to get an even distribution of flux on the solder side of the PCB. Spraying in both directions is advisable and the speed of the fluxer head must be adjusted to the speed of the conveyor.

Spraying each point twice is advisable. A card board, glass plate or scrap board can be used to check this even distribution. A good penetration of the flux in the through holes is also very important. The flux should be sprayed to the top of the hole. The right air pressure and flux amount are important. This can be checked

with a fax paper on top of the board without components.

To reduce residue formation after soldering, it is important to find the minimum flux amount. It is found by reducing the amount that gives good soldering results until problems appear like poor through hole wetting, bridging,... and raising it again.

## Preheating and wave contact

A preheating is used to limit the temperature shock of the PCB when entering the wave and to evaporate the solvent of the flux.

The preheating can influence through hole wetting on boards with heavy thermal mass (Cu, components,...). More preheating can promote through hole wetting

on these boards. The flux itself has no lower limit for the preheating. It is advisable to limit the time over 180°C in the preheating to avoid flux exhaustion.

The wave contact is determined by the immersion depth, the conveyor angle and speed. More wave contact can promote through

hole wetting. Take care not to overheat the board or components, or flood the board (immersion too deep). In general, wave contact is between 1-2 sec for the first wave and 2-4 seconds for the main wave.

## 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 2.3.33D
spot test (F)	<b>pass</b>	J-STD-004A IPC-TM-650 2.3.35.1A
quantitative halide	<b>0,00%</b>	J-STD-004A IPC-TM-650 2.3.35C
<b>Environmental</b>		
SIR test	<b>pass</b>	J-STD-004A IPC-TM-650 2.6.3.3B



## Packaging

High density Polyethylene drums of:  
10L, 25L and 200L

Trade name : OSPI 3311 No-Clean Soldering Flux for OSP

D i s c l a i m e r

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