



The IF 2005-series is a series of 3 absolutely halide-free, rosin- and resin-free, alcohol based no-clean fluxes.

IF 2005M : 1,8% of solids

IF 2005K : 2,5% of solids

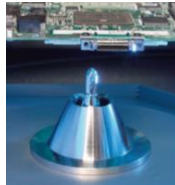
IF 2005C : 3,3% of solids

Residues

All chemistry used in these fluxes can be evaporated during the soldering process resulting in a No-residue™ situation when the right conditions are met.

Residues can form when :

- The necessary heat to evaporate all substances of the flux is not provided in the process.
- Flux is entrapped and shielded from heat and/or wave contact (as with selective soldering carriers)
- The fluxed area is bigger than the soldered area (selective soldering)



Due the absence of rosin and resin, the residue of these fluxes is white and crystalline.

Identification of the residues:

If the residues are originating from an IF 2005-series flux:

- they can be brushed away manually
- they can be evaporated with a heat gun >160°C (320°F)

If this is not possible, the residue does not totally originate from the IF 2005 flux.

Residues may also originate from the solder mask (solder mask bleeding), the carrier, the solder bath, components, solder paste, ...

It is possible that residue is a mixture of IF 2005 and substances from the other mentioned sources.

Safety of the residue

Residues of IF 2005-series are :

- Non hygroscopic
- Non conductive
- Non corrosive
- Non metal etching

IF 2005 chemistry has a reliability history of over 30 years in all branches of the electronics Industry worldwide, including aerospace, automotive, avionics, medical,....

It is considered to be one of the safest flux chemistries on the market.

IF 2005 fluxes pass most stringent reliability tests.

Residues and conformal coating

The residues of any IF 2005 flux have extremely high compatibility with conformal coatings without cleaning. Virtually all coatings are compatible with IF 2005 residues.

However, compatibility is never only between a flux and a conformal coating.

Other parameters like:

- the surface where the coating is applied to (solder mask, components, solder joints,...)
- possible residues from other sources
- processing parameters of the coating application
- processing parameters of the soldering process

have an influence on compatibility.

So, it is advisable to test compatibility on the unit itself, that has been produced with real production parameters and materials.

Reduction of the residue

When originating from an IF 2005 flux, residue formation can be reduced by adapting following parameters:

- Flux application :
 - reduce flux amount
 - reduce spray air pressure
 - avoid flux application in areas where there is no wave contact
- Increase preheating
- Increase wave contact
- Increase soldering temperature