



No-clean, VOC-free, low residue soldering flux for selective fluxing applications

Description:

TerrFic RP65 is a VOC-free and no-clean soldering flux developed for selective fluxing applications with low residue formation.

Typical processes where TerrFic RP65 can be used are hand soldering, re-work and repair, automated soldering, stamp soldering, ...

The flux has not been developed for selective wave applications.

TerrFic RP65 is absolutely halogen free, guaranteeing a high reliability after soldering.

The flux does not contain any rosin nor resin, providing a high cleanliness after soldering.

The flux is compatible with lead-free and SnPb alloys.



Products pictured may differ from the product delivered



Key properties

- VOC-free, 100% water based
- Clean solder joints
- Wide range of use
- Wide process window
- Absolutely halogen free
- Compatible with both lead-free and SnPb alloys

Physical and chemical properties

Density at 20°C	1,00 g/ml ± 0,01
Colour	clear
Odour	sweet
Solid content	6,5 % ± 0,2
Halide content	none
Flash point (T.O.C)	n.a.
Total Acid Number	44 mg KOH/g ± 2
IPC/ EN	OR/ L0



Applying the flux

The flux can be applied by brush, by spraying, dipping...It is advisable to apply the flux on the surfaces to be soldered only. An easy way of doing this is by using a flux pen with glass fibre tip. In general, it should be the goal to apply just enough flux in order to minimize residue formation after the soldering process. This is being done by trial and error because each process has different parameters, determining the required minimum flux amount. Minimize the flux amount gradually until soldering defects like non wetting, orange skin, etc... appear. Raise the flux amount till the problems disappear.

Preheating

In general a preheating is used to limit the temperature shock and to evaporate the solvent of the flux. It is advisable to have the water evaporated before going to soldering temperatures.

Soldering

Regardless of the used soldering technique, it is always important to know the physical limitations of the components and base materials to be soldered and to adapt the soldering profile to these limitations.

Hand soldering : For Sn(Ag)Cu alloys, the advised working temperature is between 320°C and 390°C. For SnPb(Ag) alloys, this is between 320°C and 360°C. For more dense metals like Nickel, the temperature may be elevated. Choose the correct soldering tip: to reduce the thermal resistance, it is important to create a large contact surface with the component and solder pad. The use of a good soldering station is important in order to always have the correct temperature on the soldering joint. Use a soldering station with a response time as short as possible. Heat up the surfaces of both component and island simultaneously. Slightly touch with the solder wire, the point where component lead, soldering island and soldering tip meet (the small quantity of solder ensures a drastic lowering of the thermal resistance). Add subsequently without interruption, the correct amount of solder close to the soldering tip without touching the tip. Using Interflux® Tip Tinner can prolong soldering tip life.



Test results

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

Property	Result	Method
Chemical		
Flux designator	OR LO	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

Safety

Please always consult the safety datasheet of the product.



Packaging

TerrIFic RP65 is available in the following packages:

Refillable and non refillable flux pen

0,5L and 1L HDPE bottle

Other packaging available upon request.

Trade name : TerrIFic RP65 VOC-free, No-Clean Soldering Flux for Selective Fluxing Applications

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