



SOLDERING FLUX TYPE WBF03T - In response to EEC directive 97/C/99/02 (March 1997), following international agreements for protection of the environment, M.B.O. laboratories have developed, in conjunction with major electronics manufacturers, this special *water based* flux for the electronics industry.

WBF03T Contains a very low volume of dry extract for "non-residue" classification.

WBF03T Flow soldering performance is equal to Alcohol Solvent based fluxes.

The carrier of this flux is water, offering very real benefits of economy in eliminating all hazards of handling, storage and shipping as are common with alcohol based fluxes.

This flux is especially developed for compatibility with lead free alloys.

Physiochemical Characteristics:

Solution	: Water (Resistivity > 10 ⁶ ohms)
Colouration	: Colourless
Density at 20°C	: 1.001 (Preset).
Dry extract	: < 5%
Chlorine rate	: Halide free
Acidity	: 34 mg/ml
Corrosiveness	: None
Insulation resistance	: > 10 GΩ
Efficiency (SAR)	: <30° SAR – Grade III
Ionic Contamination	: <3µg/cm ² (After double wave application)

Application Notes:

- **WBF03T** flux is supplied ready for use.
- **WBF03T** flux performs most efficiently when used in flow solder machines using spray applicators.
- For flux applied by spray it will be necessary to adjust the air pressure (or gas (nitrogen)), by the pump control and/or the conveyor speed to reach an optimum performance.
- Circuit board preheat temperature, after fluxing, should be between 90°C and 100°C on top side of the circuit and between 110°C and 120°C on the solder side (with lead free alloys, the temperature should be increased from about 10°C - 20°C).
- The bath temperature containing the alloy should be near to 245°C (260°C for lead free alloys).
- Although residues are minimal, where further cleaning is essential, they remain totally water soluble.

Packaging:

Throwaway/Recyclable HDPE containers of 5, 10 and 20 litres.

Storage:

In original hermetically sealed containers at approximately 20°C for 12 months.

WBF-01, 02 & 03 Characteristics:

WBF-01DS is dedicated to a nitrogen blanket, leaded process. Activity is very low. IA = 12mg

WBF-01 is dedicated to a air atmosphere, leaded process. Activity level is low. IA = 20 mg

WBF-02T is dedicated to a lead free process in the main. Activity level is high. IA = 35mg

It was also developed in an attempt to minimise solder ball adhesion as is common with such flux types.

WBF-03T is dedicated to a lead free process. Activity level is high. IA = 34mg

The WBF-03T was developed in an attempt to reduce flux residues as can at times be seen on the surface of some PCBA's depending upon the type of solder resist being used on the PCBA itself.