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BLT LEAD FREE DROSS INHIBITOR **(Tin/P Regenerator)**

Description

BLT Lead free Dross Inhibitor is an alloy of tin, phosphorous and other anti-oxidant additives, which is added to lead free solder to reduce dross production and improve and maintain solder mobility.

All lead free alloys manufactured at BLT contain dross inhibiting additives, but due to the natural oxidation of metals, namely tin, the additives are depleted in the lead free wave soldering process. The addition of dross inhibitor largely depends on the usage and type of wave soldering process. Dual wave processes create the greatest solder turbulence and therefore increase oxidation. However, if solder consumption is high, the natural replenishment of the base alloy will help to maintain equilibrium and therefore keep dross inhibitor additions to a minimum. Solder machines are invariably switched on for most of the day and therefore even if there isn't much throughput through the wave, the oxidation process continues through time and temperature.

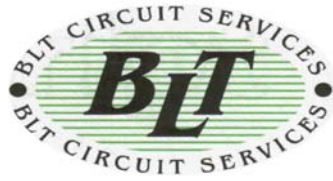
When to add Dross Inhibitor

There are usually tell-tale signs when a lead free alloy requires an addition. Generally, the dross changes in appearance from a grey black powder to a coloured coagulation of solder and dross. This is usually accompanied by a golden yellow skin on the surface of the solder. The solder also appears to be sluggish and can even be the cause of bridging on fine spaced terminations.

How much Dross Inhibitor?

1kg of Dross Inhibitor will fully replenish 100kg of lead free alloy. Therefore there are generally three ways in which to replenish.

1. Make a full replenishment every few weeks or whenever it is deemed or calculated with regard to throughput. (usually when carrying out a full solder bath maintenance)
2. Add a regular amount each week (according to use) to maintain inhibitor level
3. Add Dross Inhibitor when it is evident the solder is in need of replenishment, this can generally be seen by the colour change to Yellow/Gold colour.



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How to add Dross Inhibitor

1. Temperature of solder should be no less than 260 deg C
2. Turn off solder pump(s)
3. De-dross
4. Add Inhibitor into pot (away from pump area/nozzle)
5. Allow 5 minutes to dissolve
6. Turn on pump(s) and circulate for 5 minutes
7. Remove any dross, there will be a noticeable colour change in the solder to a high lustre silver appearance and flow characteristics will improve greatly.
8. Start production

Handling

Please refer to the material safety data sheet included with this technical information

Package size

1kg chunks

Warranty

All reasonable endeavours have been made to ensure that the information contained in this data sheet is accurate, but it is submitted on the express condition that BLT Circuit Services shall not be under any liability of whatsoever nature, arising, suffered or incurred as a consequence of its use.