

MICROTRAK

PROCESSING INSTRUCTIONS

With Microtrak Pre-Sensitive PCB material it is very important to ensure that you have a good opaque artwork which blocks out UV light. This can be achieved with our inkjet A4 and A3 Printer and Jetstar premium film.

58-5301-1 A4 PRINTER WITH 10 SHEETS A4 JETSTAR PREMIUM
 100-075 JETSTAR PREMIUM A4 10 SHEET PACK
 100-076 JETSTAR PREMIUM A4 100 SHEET PACK

58-5302-1 A3 PRINTER WITH 10 SHEETS A3 JETSTAR PREMIUM
 100-077 JETSTAR PREMIUM A3 10 SHEET PACK
 100-078 JETSTAR PREMIUM A3 100 SHEET PACK

Alternatively if you wish to use a laser printer then we would recommend our LaserStar film

100-062 Laserstar Film (A4) (10 Shts)
 100-063 Laserstar Film (A4) (100 Shts)
 100-065 Laserstar Film (A3) (10 Shts)
 100-064 Laserstar Film (A3) (100 Shts)

Microtrak PCB material should be processed as follows:

1) Mix the developer as follows:

4007 Photoresist universal powder developer part no: 600-007

Add 50 grams of the powder to 1 litre of hot tap water. Stir the powder until it has all dissolved in the water. Allow the developer to cool down to room temperature and use between 18 and 25°C.

4006 liquid photoresist developer concentrate part no: 600-010

Add 80 ml of developer concentrate to 920ml of water to make 1 litre of working solution. Use between 18 and 25°C.

2) Exposing the Board.

It is very important to ensure that the board is fully exposed. Typically we recommend exposure times of 2½ - 3½ minutes in our LV202E 2 tube exposure unit and 1½-2½ minutes in all our other exposure units using our clear inkjet film. However if you are using a more opaque film such as tracing paper or even ordinary paper exposure times will need to be longer. This would have to be determined by trial and error. NB if the resist is not exposed for long enough it will be difficult to develop it all away.

N.B. Always ensure the exposure unit has been warmed up before using it order to ensure the tubes are giving their maximum output of UV light.

3) Developing

Place the board in the developer and leave for 30 to 90 seconds depending on the temperature of the developer. N.B. the higher the temperature the quicker the development. Agitate the board in the developer every few seconds to ensure even development. The developer should be used between 18 and 25 degrees C.

4) Remove the board from the developer and rinse thoroughly.

Tip for checking board after first exposure and development

To ensure the board has been exposed and developed properly place the board in the ferric chloride for 30 to 60 seconds then rinse thoroughly. All the areas of copper that have been developed away should have turned a dull matt pink colour. If there are any areas which are a shiny gold colour it means that the board has not been exposed for long enough or the developer needs replacing. In this case put the board back into the developer for another 20-30 seconds then remove it and rinse immediately. Place the board in the ferric chloride solution for another 30 to 60 seconds and check as before.

5) Strip the resist

After etching the photoresist can be stripped off using our PC155 stripper or solvent such as our universal solvent or acetone.

Chemistry

600-007	4007S005 Seno Universal Developer 500g makes 10 Ltrs
600-010	600-010 4006V05 Seno Liquid Dev conc 1Ltr makes 12.5 litres
600-019	PC155 Resist Strip 1 Ltr makes 5 Ltrs
600-025	SN4010V01 1Ltr Universal Solvent
*600-015	Seno PC145 (5LTR) Liquid Ferric Chloride Etchant
	*UK ONLY - MAX ORDER QTY 3 per delivery by normal carriers