

RS COMPONENTS RESIST COATED LAMINATES VARIOUS SIZES



Microtrak FR4 epoxy glass laminates are dip coated with a high resolution positive working Photoresist. The Photoresist contains a dye which gives a good contrast against the copper, allowing boards to be easily inspected at the developing stage. Panels are protected by a specially designed light-proof blue film which allows panels to be guillotined without the risk of fracturing the Photoresist.

Specifications:	
Thickness	1.6mm
Copper foil	35 micron
Dissipation factor	35
Dielectric constant	5.4
Solderbath resistance (260°C)	20 secs
Resist thickness	5 microns
Spectral response	350-450nm
UV light energy required	approx. 50mJ/cm
Shelf life	1 year at 15-20°C
Developer	690-849 4007 500g
Etchant	Ferric Chloride liquid and Fine Etch Crystals

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 a high quality Inkjet Printer with original OEM inks and our A4 and A3 Jetstar premium film.

100-075 JETSTAR PREMIUM A4 10 SHEET PACK (RS PART NO: 6665697)

100-077 JETSTAR PREMIUM A3 10 SHEET PACK (RS PART NO: 6665690)

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

100-062 Laserstar Film (A4) (10 Shts) (RS PART NO: 286-6773)

100-065 Laserstar Film (A3) (10 Shts) (RS PART NO: 286-6789)

Microtrak PCB material should be processed as follows:

1) Mix the developer as follows:

4007 Photoresist universal powder developer part no: 600-007 (RS PART NO: 690-849)
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.

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 (RS PART NO: 555-279) 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.