

DEVELOPER DP-50

KINSTEN IND. CORP

A. Prepare the solution :

1. Pour one litre (1000 c.c.) of water into a small flat plastic tray.
2. Pour whole pack of DP-50 powder (50g) into the water and slightly shake the tray until completely dissolved.

B. Development :

1. Place the exposed presensitized PCB in the solution and slightly shake the tray until the tracks area clear and there is no more blue, smoke like resist coming off the exposed area on the board.
2. Rinse the board under running water to remove developer and to stop the developing process.
 - * The correct ratio between developer and water is important but not critical, a maximum tolerance of -10% to +30% is allowed.
 - * A normal developing time is from 30 seconds to 2 minutes. If the developing time is less than 30 seconds, the unexposed parts of the board will be easily damaged due to too concentrated solution.
 - * The developing process should take place at room temperature. Higher temperature will shorten the developing time.
 - * The usable time of solution is one day after use.
 - * The developing ability of each pack of DP-50 is about 20 PCB's (10×15 cm).

Caution :

Keep out of reach of children. Warning ! Alkaline powder, If eye contact flush with plenty of water.
If swallowed contact physician at once.

MADE IN TAIWAN

INSTRUCTION OF PRE-SENSITIZED P.C.B.

1. PREPARE YOUR CIRCUIT ARTWORK:

- A. On a transparent film start your lay out with transfer paper, donut pads, black tapes etc.
- B. Drawn your circuit on white paper and then copy on an acetate film.
- C. Direct copy the circuit on transparent film from book or magazine by duplicator.
- D. Print out from computer plotter.

2. EXPOSING:

1. Cut the board to a size you desired if necessary.
2. Tear off the black protection film on the board.
3. A. Expose the board in KINSTEN EXPOSURE BOX for 60-90 seconds.
(see instruction of exposure box)

- B. Put your artwork on top then press a flat glass sheet as a top layer to make a good contact between the film and surface of board. Just like a sandwich.

Keep a 10 or 15 watts fluorescent table lamp on the glass with a distance of 5 cm plus minus 1 cm.

Turn on the light for 8-10 minutes. (If the board width is over 10 cm, divide the board into two sections then expose 6-8 minutes each)

* Good contact between the film and the board is very important.

* If double the distance between the light source and the board, it must triple the exposure time.

* For double sided board, lining up two films and taping their opposite edges together, insert the board between the films, then taping the films to the board just like a sandwich expose the first surface then flip over the other surface.

3. DEVELOPING:(see instruction of DEVELOPER DP-50)

1. Put the whole pack of powder and one litre (1000 c.c.) of water into a tray, agitate the tray till the powder is dissolved.
2. Immerse the board competely, agitate the board or the tray until the artwork is clear otherwise bare copper foil.
3. Rinse the board with running water.

4. TROUBLE SHOOTING:

Small breaks or skips on the circuit pattern can be correct and repaired by applying oil type signature pen.

5. ETCHING:

- A. Etching the board in KINSTEN ETCHING TANK for 4-10 minutes.
(see instruction of ETCHING TANK)

- B. Pour enough etching solution (Ferric Chloride) into a plastic tray, and immerse the board with artwork side up.

Gently agitate the tray, till the unwanted copper foil etched away, only the circuit pattern left.

Rinse the board with plenty of water.

- 15-60 minutes may be required to etch the board completely.
- The etching process is most effective if the solution is kept at a temperature of about 120-140F (50-60C).

