

Stevenage Circuits Group

Incorporating:

Stevenage Circuits

Tru-Lon Printed Circuits

May 2011

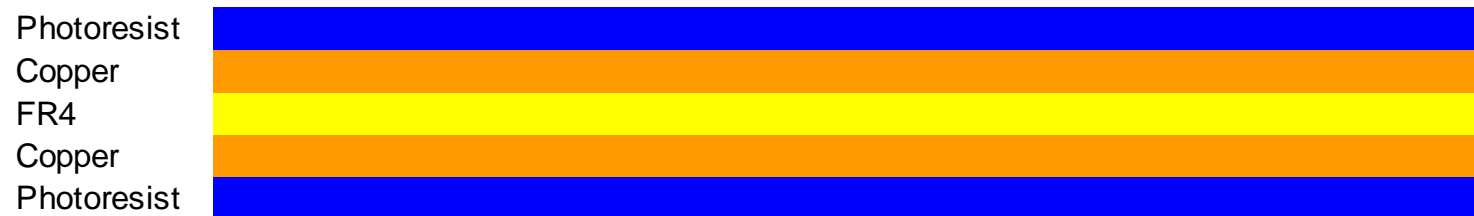


How a PCB is made.....

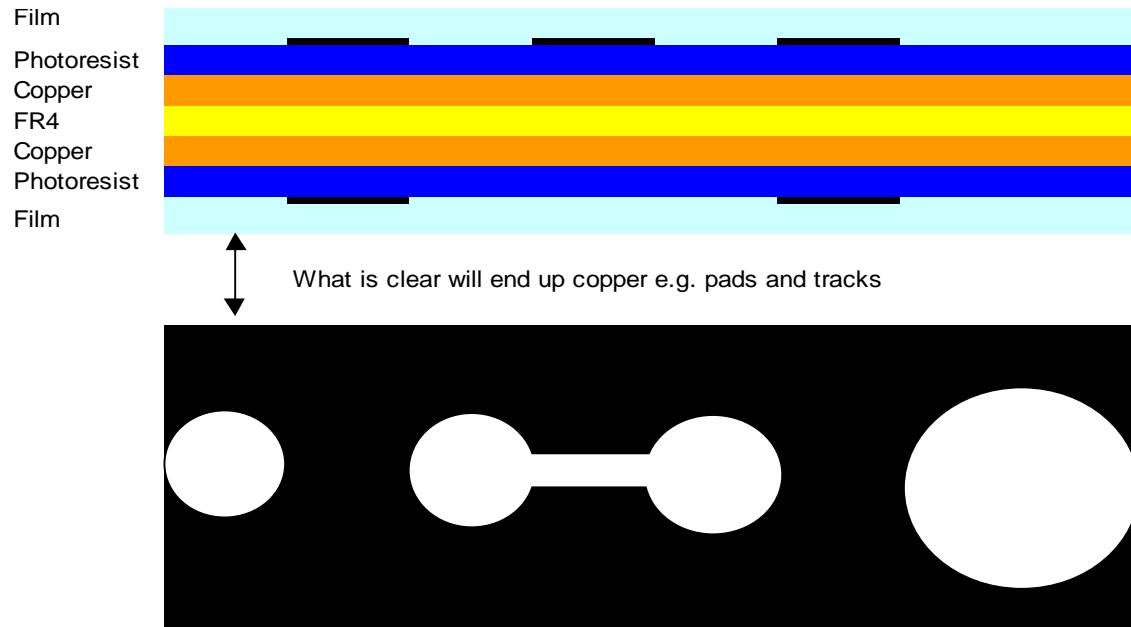
1) Laminate as supplied by manufacturer



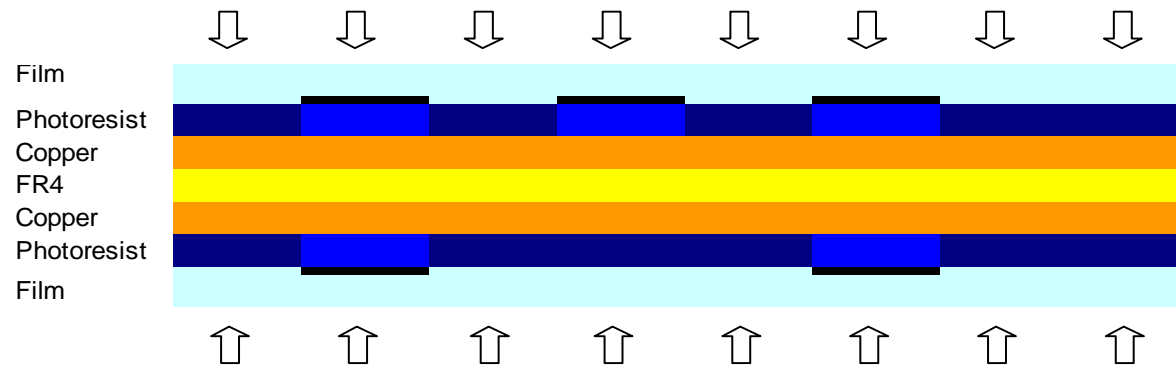
2) Coat laminate with photoresist



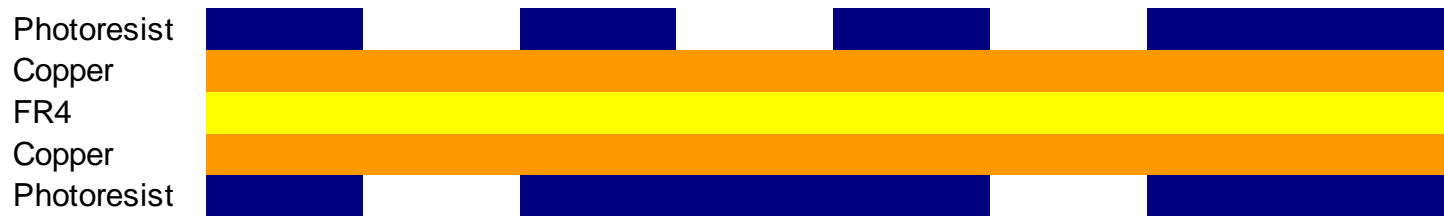
3) Pin tool ed negative inner layer film



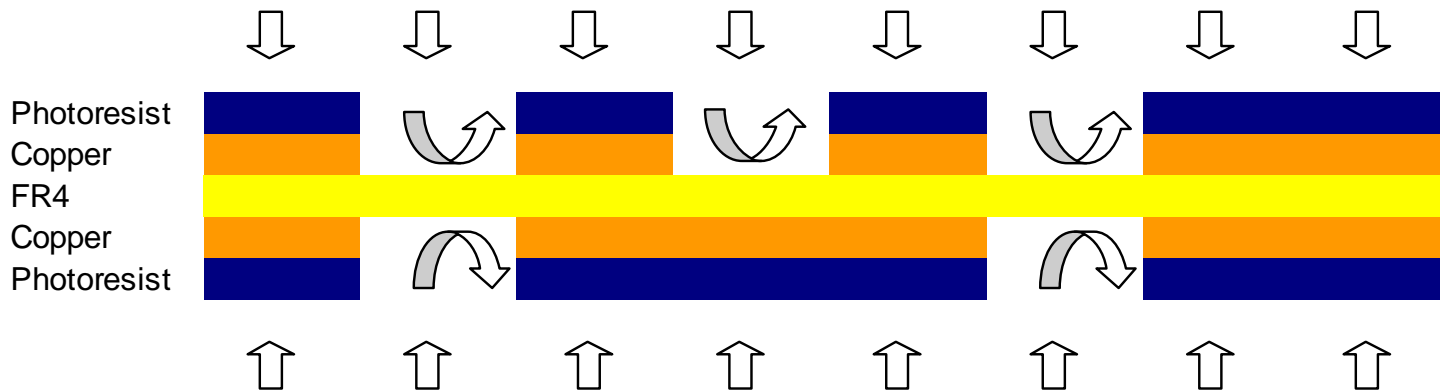
4) Expose with UV light



5) Remove film and develop off unexposed resist



6) Etch off copper not protected by resist

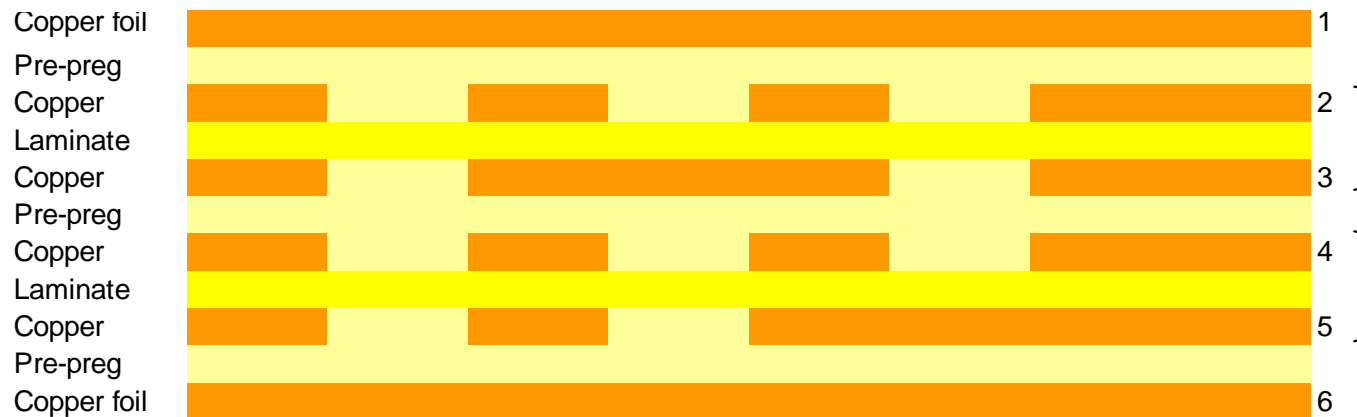


7) Strip off photoresist



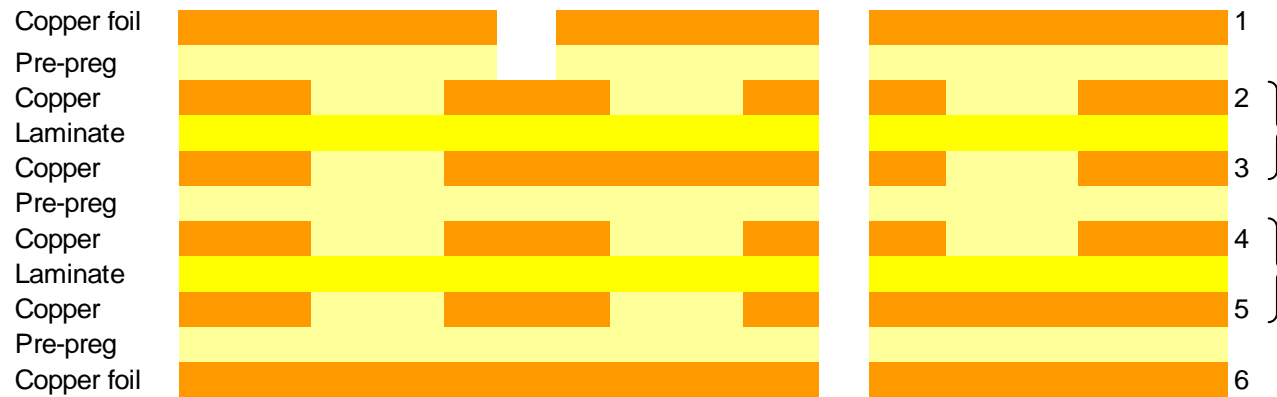
..... to get an etched inner layer pair e.g. layers 2/3

8) Bond layers to form 6 layer board

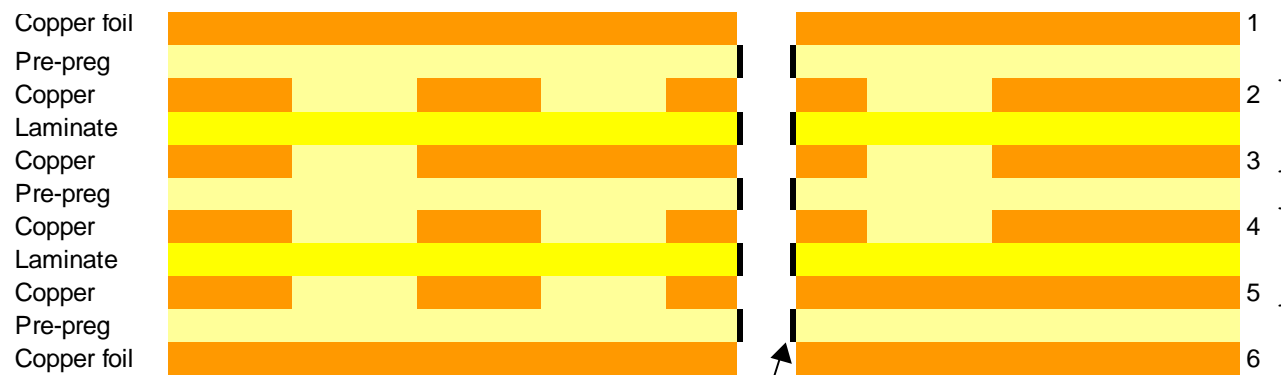


Full copper foil on outer layers

9) Drill and Permanganate Desmear

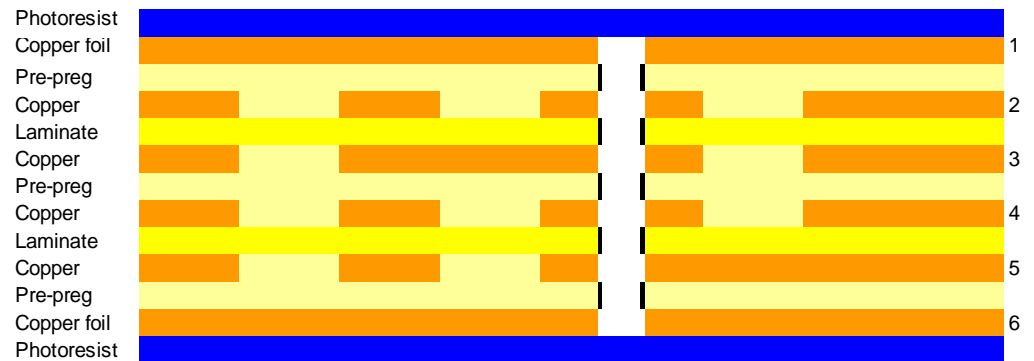


10) Direct metalisation process

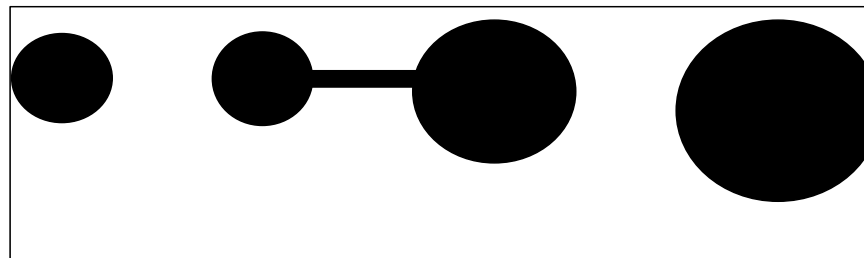
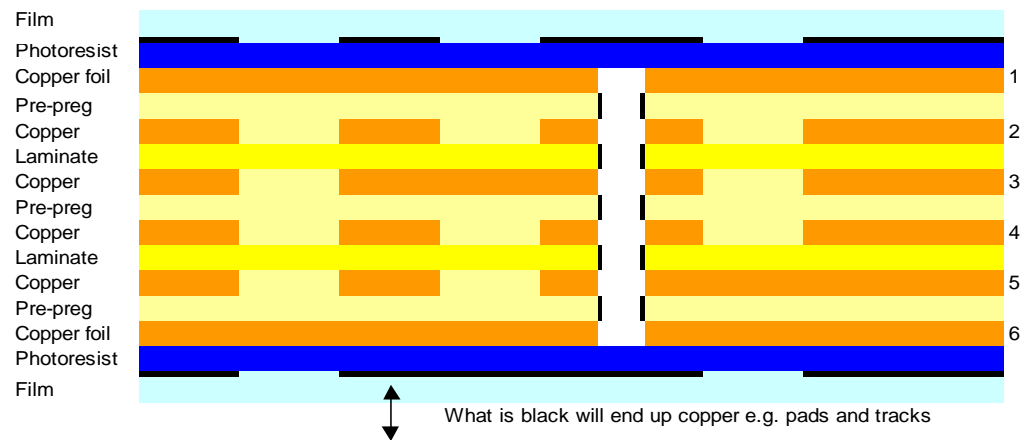


Conductive graphite added (only remains on non copper)

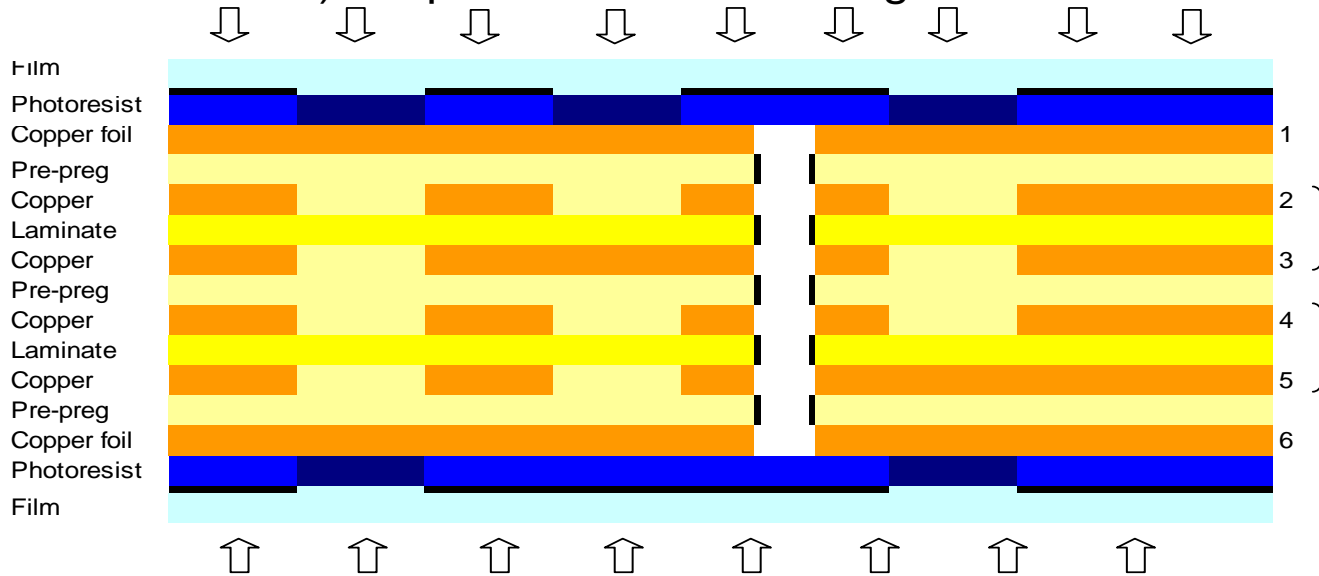
11) Coat with photoresist



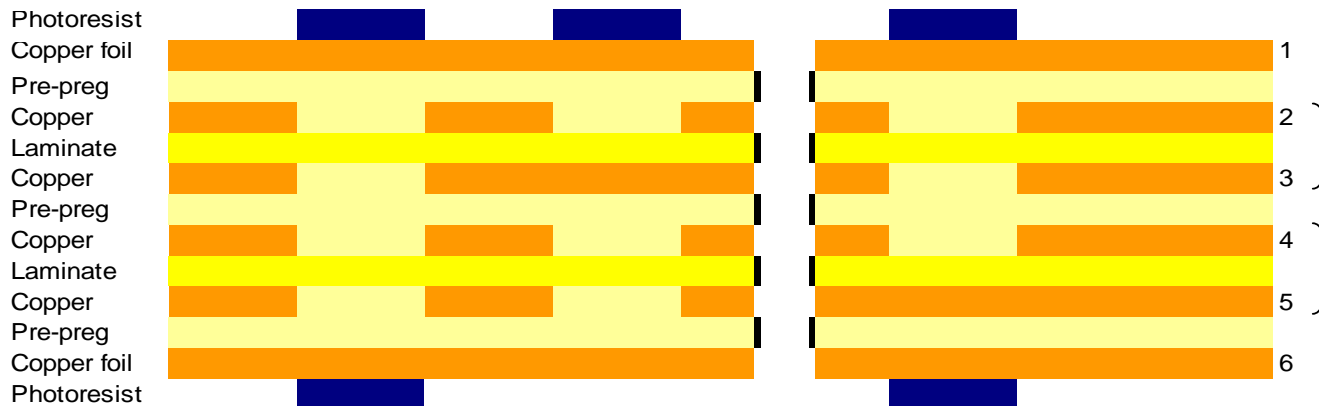
12) Pin tool ed positive outer layer film



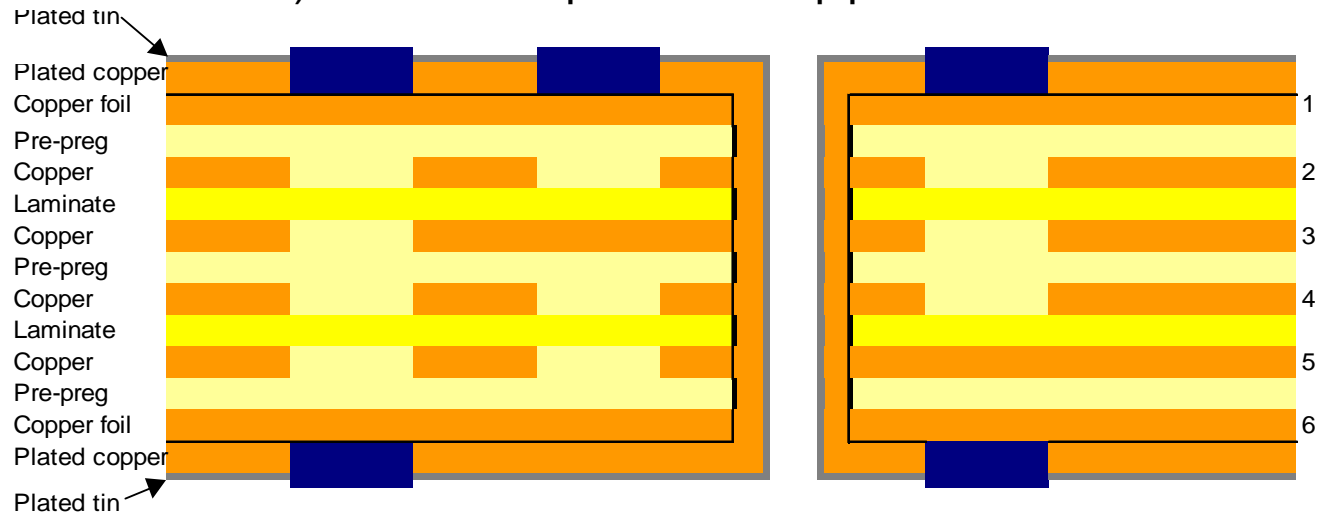
13) Expose with UV light



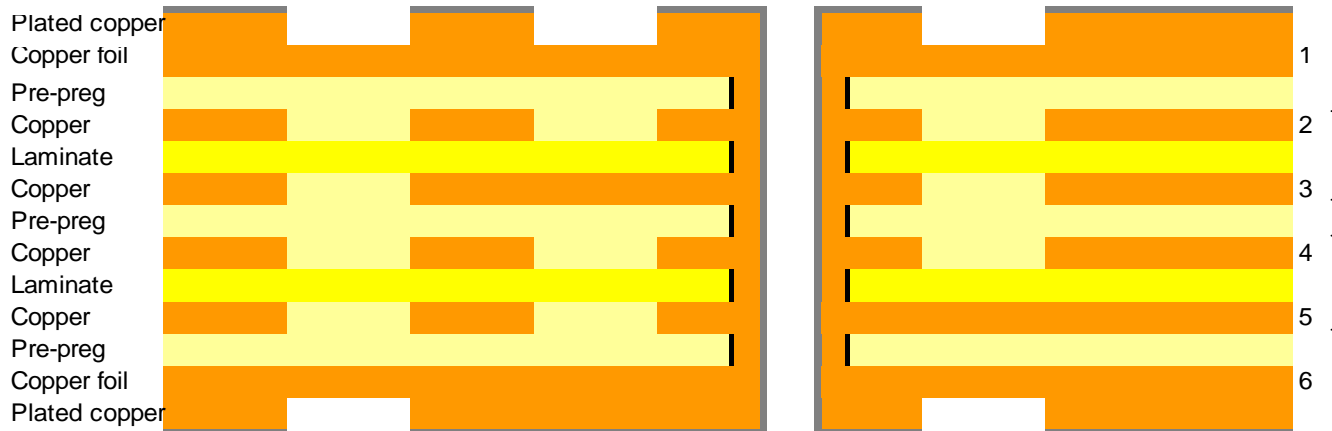
14) Remove film and develop off unexposed resist



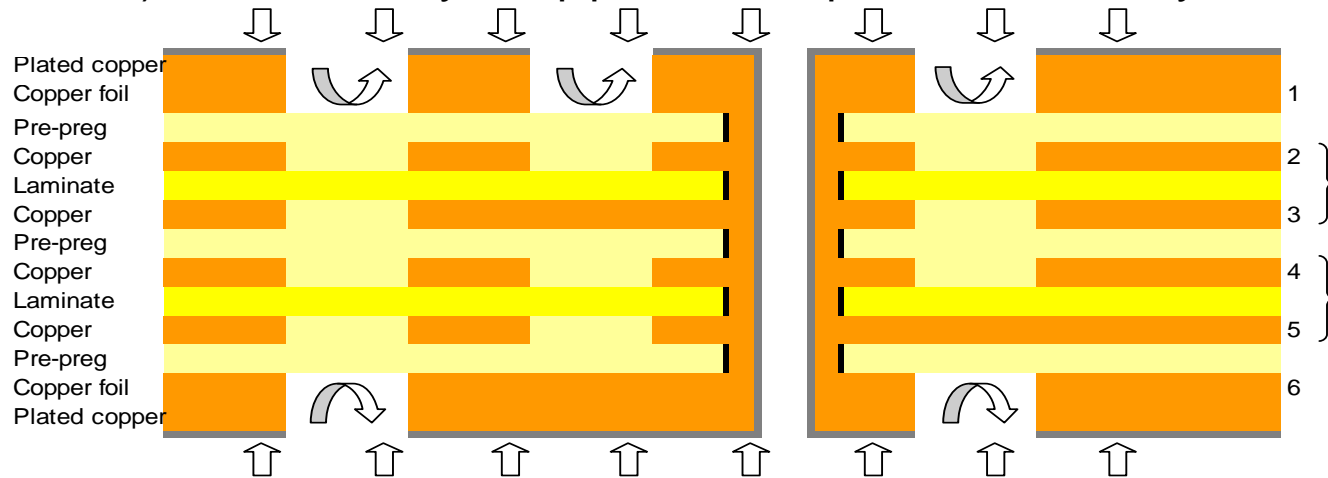
15) Electroplate copper and tin



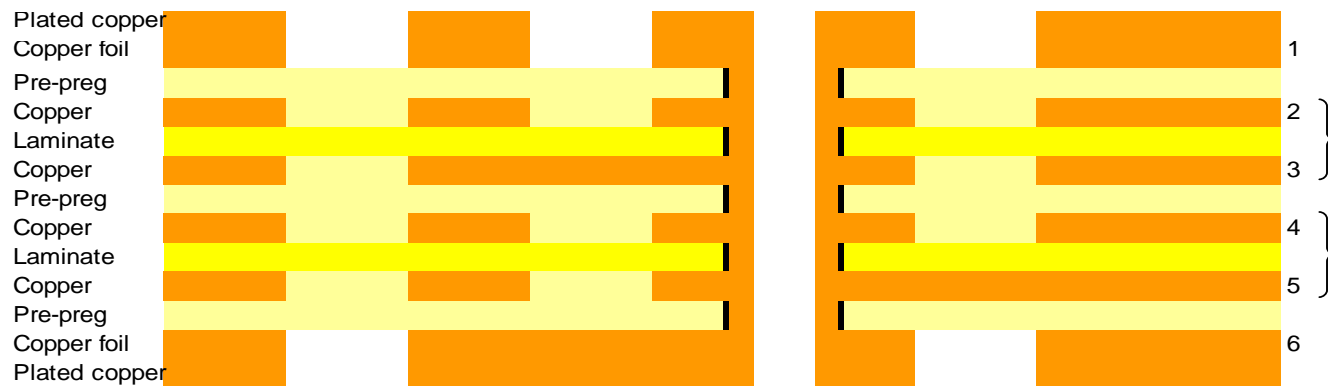
16) Strip off photoresist



17) Etch away copper not protected by tin

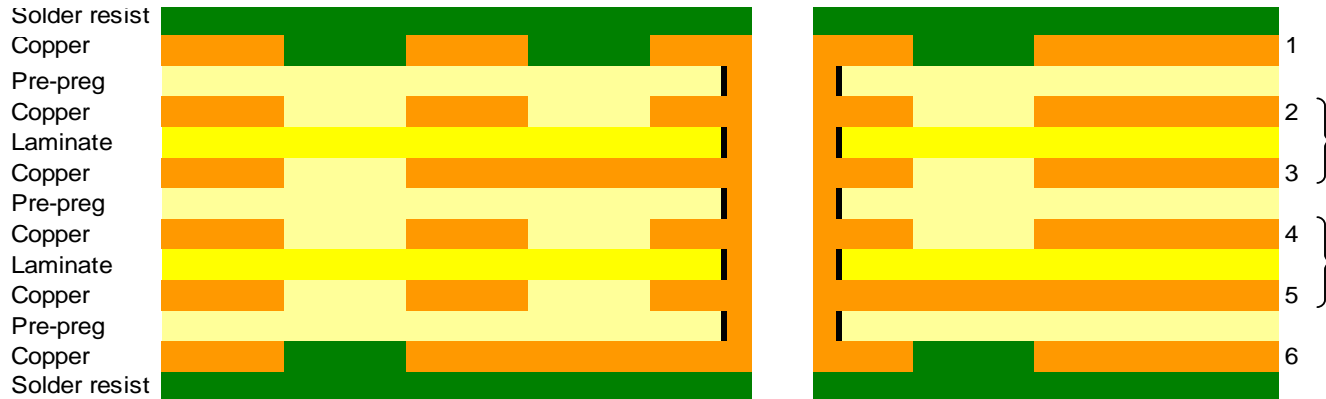


18) Strip tin

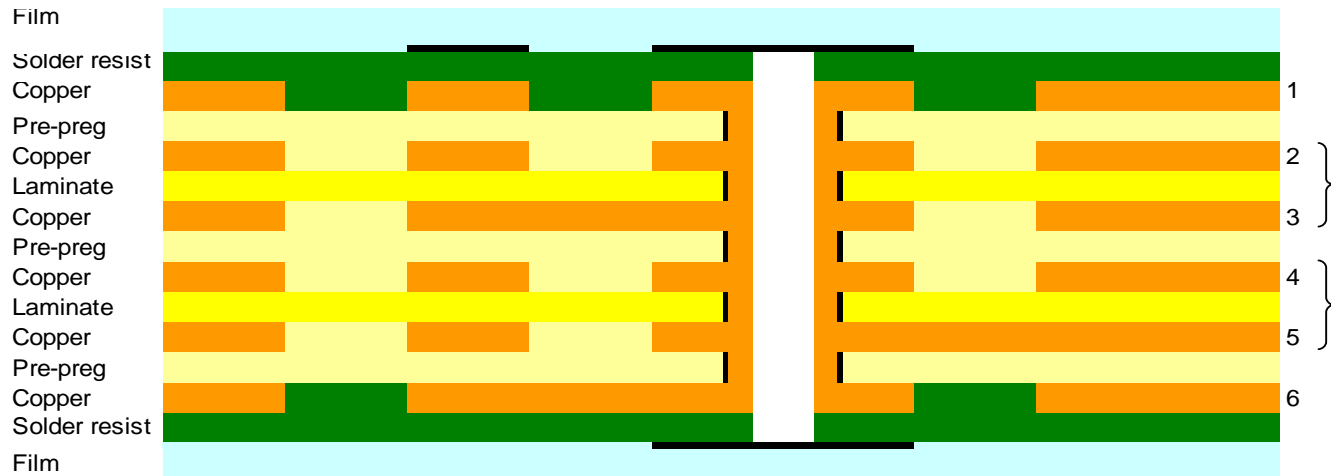


..... and we have a working PCB!

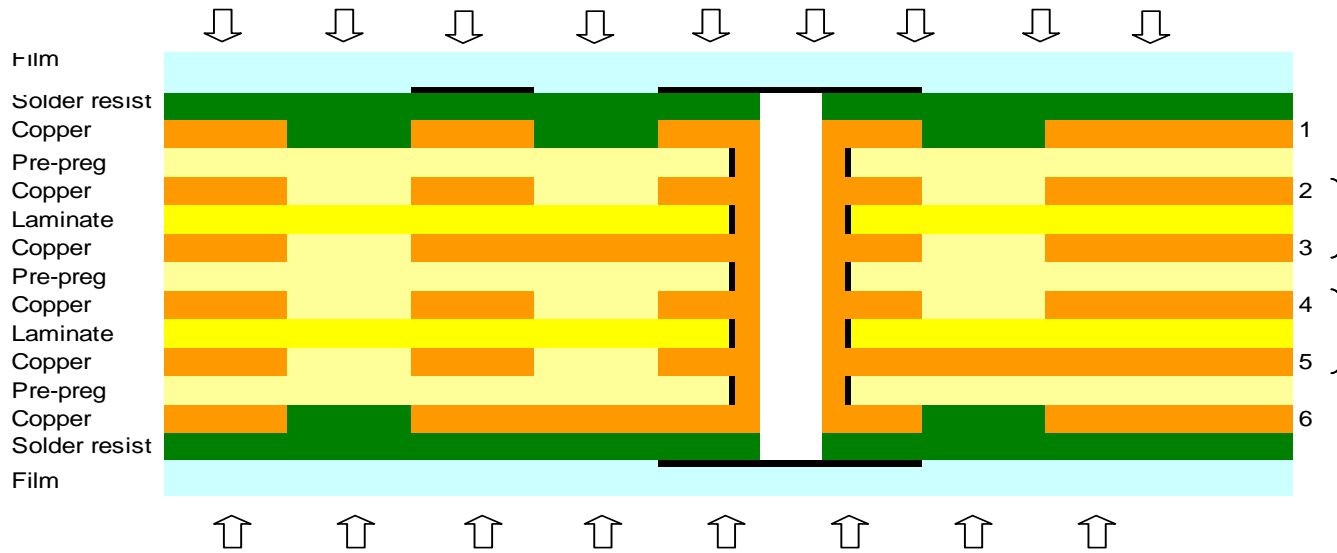
19) Coat with solder resist



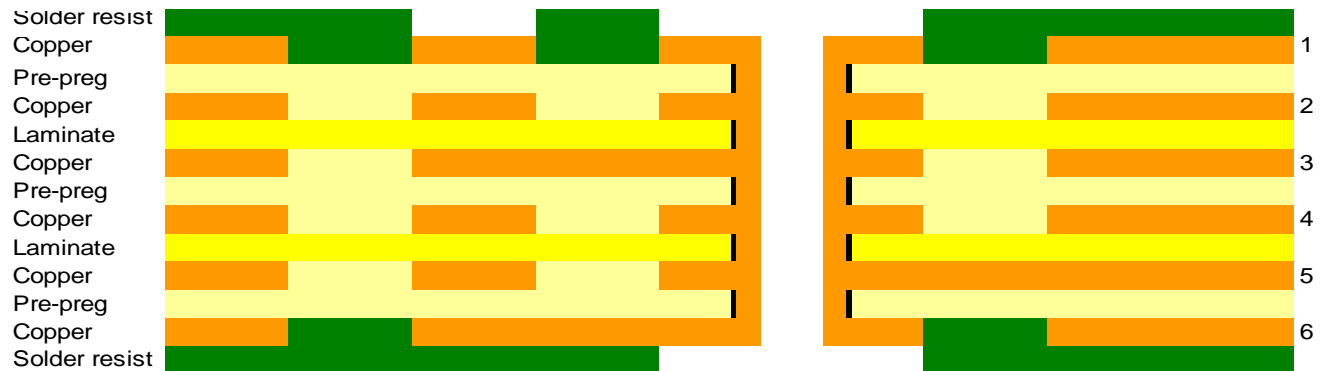
20) Pin tool ed positive solder resist film



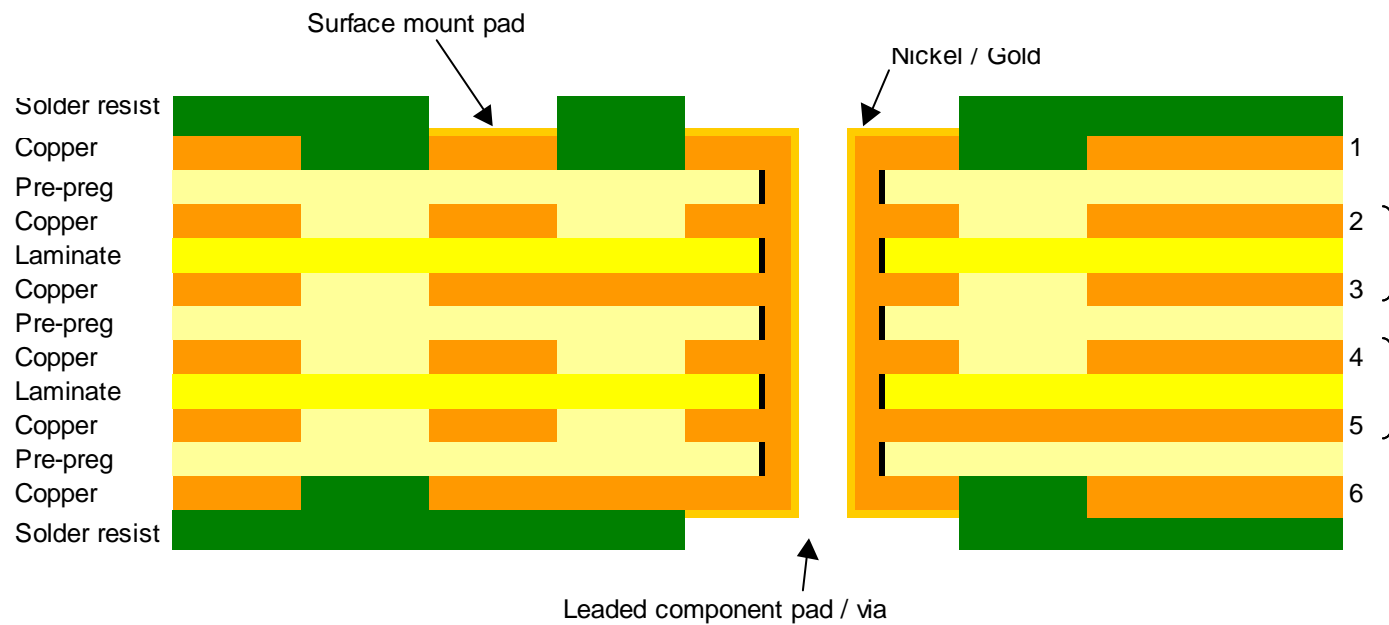
21) Expose with UV light



22) Remove film and develop off unexposed resist



23) Add finish (e.g. Ni / Au) to exposed copper



Thank you for the interest shown

- For further information please:
- Visit our website www.stevenagecircuits.co.uk
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 - info@tru-lon.co.uk
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 - 01438 751800 (Stevenage Circuits)
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