



## ***Copper Etching Tutorial***

There are a number of ways to etch a copper plate, but this has proven to be the most reliable. The Ferric Chloride is a salt – not an acid, but it still needs to be disposed of carefully.

### Materials:

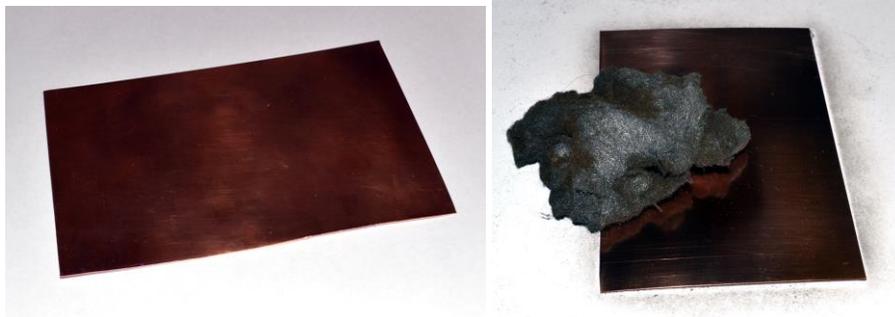
- 5x7” copper sheet (step flashing from a hardware store)
- Permanent ink black fine point marker
- Steel wool
- Plain paper
- Wide tape
- Baking soda
- Ferric Chloride liquid (Radio Shack)

### Tools:

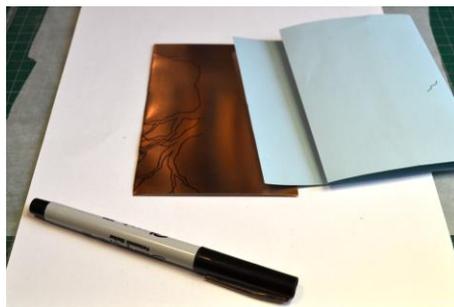
- Pyrex dish with lid

### Directions:

- The 5x7” copper sheet needs to be cleaned and kept free of fingerprints or the etch will be spotty. Place it on a sheet of paper and use the steel wool to remove any marks and create a bright shine. Do not worry about the slight scratches from the steel wool as they will disappear during etching.



- Use the permanent ink fine tip marker to draw the design on the copper (the marker is the resist). Use a piece of paper to move the copper around or cover if you need to lean on it.

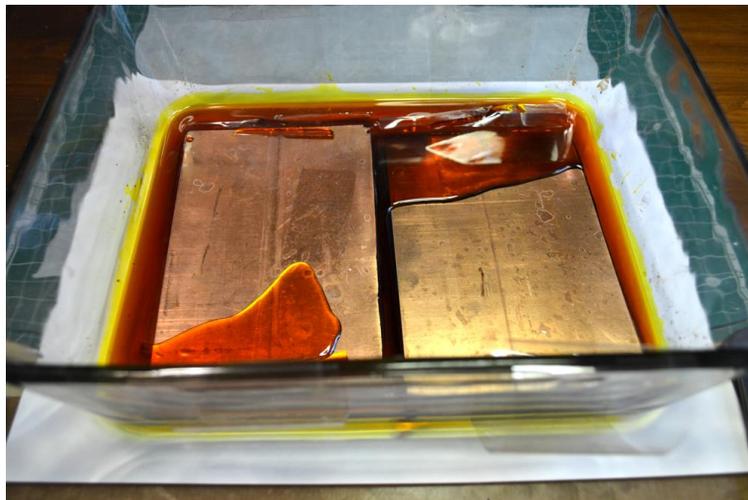




- When finished with the drawing carefully turn over and cover back with tape – either packing or masking. Make sure it is totally covered and no open areas or the back will also etch.



- Pour about 1/8<sup>th</sup> inch of Ferric Chloride in the bottom of a pyrex dish. Use a dish that is just big enough to hold the sheet of copper as you cannot use the Ferric Chloride a second time and achieve as deep an etch.
- Suspend the copper sheet face down in the dish with the plate just touching the liquid using more tape.



- Place a cover over the dish as there is some smell.
- Let sit for approximately 2 hours, shaking occasionally to loosen any copper particles that might get stuck.



- After 2 hours peel tape off dish and check to make sure etching is deep enough.
- Place etched sheet into a dish of water and baking soda to stop the etching process and neutralize the Ferric Chloride.
- Wash thoroughly.
- If any of the black marker is left on the sheet you can use Acetone and a non metal scrubber to clean it off. The color of the metal will not affect the finished veneer – it just needs to be clean and free of magic marker.
- The Ferric Chloride can be neutralized carefully with baking soda – it foams up if combined too quickly. Do not pour it down the drain. While it is not an acid it will still damage pipes.

