

Jackson's

JACKSON'S ETCHING PLATES EXPLAINED

Our economy etching zinc is 0.8MM thick, unpolished and un-backed. It is ideally suited to printing with small table-top presses. Our 1MM thick polished etching zinc has been polished on one side to a bright mirror finish, then protected with a plastic peel off coating. Both are high quality titanium zinc with lovely working properties on which and you can achieve fine and sharp etches with copper sulphate solution. Our 1.2MM thick copper etching plate is again polished to a bright finish on one side. Copper is harder than zinc so will yield more prints and can be steel faced for large editions. Copper also allows for a quicker wiping of all surface ink residue when you don't want any plate tone.

PLATE SURFACE AND HOW IT AFFECTS PRINTING

Unpolished plate will have a grained surface that will hold a small amount of ink and print with a slight plate tone. Polished plates can be wiped free of ink and so print white.

PLATE SURFACE AND HOW IT TAKES GROUNDS

Traditional grounds, stop-out varnishes and BIG Etching Ground will adhere to a polished plate as long as it is thoroughly degreased. Many acrylic grounds and stop-out resists will only adhere properly to a plate with a slight grain or tooth such as when the plate has been evenly sanded, and again thoroughly degreased. The grained plate will be smooth but with a dull finish. If you work with acrylic grounds that require a grained plate, then after the etching process is complete, any areas you wish to print white can be polished up again to remove the grain.

PLATE EDGES AND HOW TO DEAL WITH THEM

The edges of etching plates need to be filed and bevelled to an angle of 45 degrees to prevent them cutting through the paper, damaging the press blankets or your fingers when handling. The thinner economy zinc won't require a bevel but we do recommend taking off any sharp bur with a scraper or deburring tool and then burnishing smooth. To file a bevel hold the plate down securely on a bench with the edge to be filed overhanging the bench slightly. A non-slip mat, such as our Worktable Non-Slip Fabric is useful to place under the plate. Hold the file at a 45 degree angle and work with a downwards and outwards motion, the corners will need beveling as well. Place some paper on the floor to collect the metal filings. The edges will now be quite rough and will hold on to any ink, therefore they will need finishing with a burnishing tool or with fine abrasive paper, until they feel smooth to the touch. If any roughening of the edges happens during the etching process, for example by etchants getting under the stop out or ground, you can simply smooth and polish up the bevels again so that they won't hold any ink and will give a lovely clean plate mark.

GRAINING THE PLATE

If you are working with acrylic resists and grounds, you will need to create a fine tooth or grain on the plate to ensure that the resists do not lift off during etching. This can be achieved with abrasive paper (medium grit 400 or 600) or a paste comprising some form of abrasive material such as carborundum or pumice powder mixed with water. Work over the plate with a small circular motion until the plate becomes evenly matt in appearance. Any small scratches on the plate should be removed during this graining process.

POLISHING THE PLATE

Our polished zinc and copper will only require degreasing before the use of traditional bitumen based grounds and BIG Etching Ground. However you may wish to polish up our economy zinc or you may want to polish a grained plate to remove any plate tone. For polishing your plate we stock wet'n'dry abrasive sheets, including a mixed pack of fine polishing grades, steel wool up to superfine grade as well as Brasso, pumice powder and carborundum grits. Polishing techniques vary and often artists will find the one that they prefer but in principal you want to work your way up through to finer grades of wet'n'dry paper or wire wool then buff with a lint free cloth, or use Brasso to polish. Although it is not really possible to reach that bright mirror finish by hand polishing, you should achieve a smooth, slick surface that you can wipe any residual ink from.

Start with a medium grade steel wool or wet'n'dry paper, sanding wet avoids any dust entering the air. Work the plate in one direction, then when you change up to the next grade, clean the plate and work across the previous direction continuing in this way up through the grades. Cleaning the plate between grades ensures that any larger particles from the previous go do not cut into the finer surface. As mentioned before, you can finish by buffing with a lint free cloth.

DEGREASING THE PLATE

Before the application of any acid resistant ground or resist, your plate will require degreasing. A combination of whiting powder and ammonia or white vinegar is used, or more amazingly soy sauce alone acts as a super effective degreaser! To degrease with whiting and white vinegar mix a small amount of each onto the plate using clean fingers, you want a gloopy consistency, and work over the plate in a circular motion for a minute

or so. Rinse off with water making sure all residue has been removed. You should see the water 'sheet' over the plate, i.e. no beading or pulling away from the edges. Repeat the degreasing process if necessary and pay particular attention to the edges. All residue must be rinsed away so as not to interfere with the grounds you will be applying.

BACKING THE PLATE

Any area of metal exposed to the mordant will be etched, so you need to ensure there is a coating on the back of your plate to protect it. There are two main ways to protect the back of your plates. One method is to cover the back of the plate with contact adhesive paper (sticky back plastic) or parcel tape making sure to avoid large air bubbles. It is advisable to peel off the plastic or tape prior to printing. Painting the back of the plate with methylated spirit based varnish, such as Straw Hat Varnish is the second method. If you are using traditional grounds and stop-outs on the front, these can be applied and removed without affecting the back coating, since they are turpentine based and soluble in white spirit.