

Etching Silver

Etching is traditionally the process of using strong acid or mordant to cut into the unprotected parts of a metal surface to create a design in intaglio (incised) in the metal. Wikipedia



YOU WILL NEED:

- "Etchant" (ferric nitrate solution of ferric nitrate crystal + distilled water)
- selection of resists: stop out varnish permanent markers, brown plastic packaging tape, PnP paper, nail varnish
- ceramic tile, hot plate, iron
- glass with lid, big enough to hold piece of metal
- baking soda (bicarbonate of soda)
- emery paper (fine) or superfine steel wool, pumice, Isopropyl alcohol &/or brass brush
- rubber gloves, plastic tweezers, toothbrush
- cotton thread & cellotape

HOW ETCH STERLING SILVER



Etched Earrings by <u>Adele Taylor</u>

- 1. Thoroughly clean the item to be etched. (wire wool, emery paper, pickle, warm soapy water, pumice scrub, final alcohol wipe) do not touch with your fingers once cleaned.
- 2. Cover the area you do not want to be etched. A good way to cover a flat surface is to use brown plastic parcel tape which is then folded up around the edge with the corners removed for a better seal and press down firmly with an agate burnisher to remove air bubbles. Use stop out, nail varnish etc to create a layer of resist to cover areas. Scratch your design into the dried resist.
- 3.If using PnP (press and peel) paper print the design on the matt side using a laser printer, test the print out on white paper first to save wasting the PnP. Set your iron to medium/high heat. Cut out the design, place matt (printed) side down on clean metal and place the metal on the ceramic tile. Apply the iron with a little pressure, wait for the paper to darken but it should not bubble or melt the iron is too hot if this happens. The design should start to show through. You can burnish the paper with an agate burnish to help the process along. Allow the metal to cool before removing the paper leaving the design.
- 4. Select a glass container that can hold your items suspended in the tank.
- 5. Set up your etching station. Wearing rubber gloves & safety goggles in a ventilated area mix 1-part Ferric Nitrate crystals and 2 parts distilled water. Make sure you **ALWAYS** add the crystals to the water. * **DO NOT ADD WATER TO ACID** *place the etchant in the glass container. Warm the etchant gently on the hotplate.
- 6. Create a way to suspend your item so that the etched metal can fall away from the piece. Either tape a piece of polystyrene to the back edge of the item to allow it to float or tape a piece of cotton to the back of the piece and suspend from a stick laid across the top of the tank.
- 7. Brush away any stubborn resist from your item using a clean toothbrush, making sure to not damage the design.
- 8. Suspend your piece in the warming etchant. Depending on the depth of etch this can take form 30 minutes 1.5 hours so that the resists don't start to break down. Old etchant will take longer, as will cold etchant.
- 9. When you have the desired depth of etch, remove from the tank with plastic tweezers, thoroughly neutralise the etchant by rinsing in water and bicarbonate of soda solution. Rinse thoroughly in water, dry and remove the resist by using alcohol wipes, nail varnish remover (acetone). Rub away any extra resist with kitchen roll.
- 10. Sand, polish and use the piece as it is or for enamelling, cutting, shaping etc.



FURTHER INFORMATION: www.creativetherapy.space/resources

<u>Etching Copper and Silver using PnP Blue Paper</u> by Benja Blue <u>Etching Sterling Silver with Ferric Nitrate</u> by Sandra Noble Goss

