



PLATING GLASS TABLEWARE

GOLD & SILVERING GLASS

GOLD & SILVER PLATING

A typical example of plating on glass is the gilding or silvering of drinking glasses. The following technique should only be considered for better quality glassware.

1. Firstly an enamel of lead borate is prepared as follows:-
2. Dissolve a small quantity of LEAD ACETATE into a quantity of hot distilled water.
3. Dissolve an equal amount of SODIUM TETRABORATE in to a quantity of hot distilled water.
4. Mix the two solutions together. As they are mixed, a white precipitate will form immediately. Filter this through a coffee filter to remove the water and then dry the white precipitate. Heat this in a small crucible, until it melts, then pour it into cold water to granulate it.
5. Dry the granules and then pulverize them. This is LEAD BORATE
6. Depending on which metal you wish to plate, either add 2 parts of SILVER or GOLD dust to one part of the LEAD BORATE (Copper dust could be used, but please bear in mind that the copper color could be seen in the underside of the glass)
7. Add a small quantity of OIL of LAVENDER, enough to make the mix thick enough to handle nicely on a fine paintbrush.

Applying the coating

Apply a heavy coat of the enamel, and allow to dry for a day.

Small designs and the rims of drinking glasses can be fired over the flame of a hand torch if done carefully. The part must be brought to a dull heat, at which point the enamel fuses. Allow the object to cool very slowly to avoid cracking.

Scratch brush the surface slightly and dip in a cyanide solution. Continue to plate with whichever metal you require. Brush plating techniques will work well here.

SILVERING GLASS

To silver glass, you need to make up TWO solutions:

1. Bring one pint of distilled water to a boil and add 25 grains each of SILVER NITRATE and POTASSIUM SODIUM TARTRATE.
2. Allow to boil for 5 minutes, then cool, and add enough distilled water to make up for the evaporation loss.
3. Dissolve 32 grains of SILVER NITRATE in 4 oz of distilled water. Add AMMONIUM, drop by drop, stirring slowly. The solution will become cloudy, then clear.
4. Add 32 grains of SILVER NITRATE and 12 oz of distilled water, then filter through a coffee filter.

All this work must be carried out using DISTILLED WATER and in glassware. Store the solution in DARK bottles, where it will keep indefinitely.

To make the silvering solution, mix equal parts of these two solutions together.

The glass must be scrupulously clean. A good cleaning technique is to clean the surface with 'SOFT SCRUB', which is a kitchen work surface cleaner with fine abrasive in it. (Or any similar product that does not scratch glass)

Swab with nitric acid, rinse with fresh water, then rinse with distilled water.

Pour the silvering solution over the wettened surface.