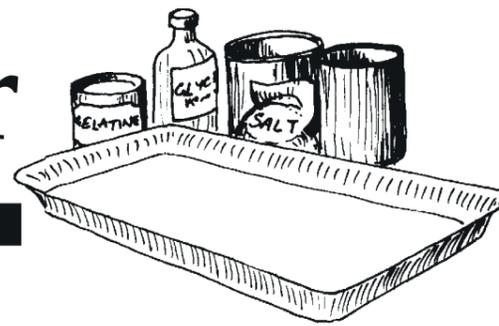


Gelatine Tray Duplicator

A LOW-COST COPYING SYSTEM



LARGE PROJECTS usually have duplicating machines or photocopiers when written material such as letters, booklets or notes needs to be copied. But small projects often lack funds for a duplicator. They are unable to copy written materials to help

them communicate. Here is a very simple way of making copies. No electricity, typewriters or expensive materials are needed. Maybe you could start a simple news-sheet or make copies of notes for your group.

This duplicator is very simple to use. It's rather slow but it's much cheaper than a duplicating machine. Each stencil will give about 50 copies each time.

These instructions sound very complicated, but it's not difficult and it really does work!

What you will need

Once bought, the ingredients should last for many years. This is what you need...

- a tray: preferably metal, about 30cm x 22cm x 2cm (or large enough to take the size of paper commonly used)
- plain gelatine crystals: 35 gram (3½ tablespoons) – try a good chemist shop
- water: 145 ml (¾ cup)
- glycerine (glycerol): 180ml (1 cup)
- salty water (brine): dissolve a handful of salt in 3 cups of water
- two large empty tins or pots, one larger than the other.

2

Making a stencil

First you will need a duplicator carbon or Hecto carbon – the type used on spirit duplicators. This is coated in a thin layer of ink which can be transferred, by pressure, on to paper. These sheets come in different colours. Good stationery shops should stock these. If you cannot find any, order them from the address below.

These are **not** the type of stencils used on ink duplicating machines.

Place the spirit carbon (with the ink surface facing up) on a smooth hard surface. Place a sheet of good quality smooth paper on top – this sheet will become the stencil. (Typing paper is ideal, but duplicating paper and other soft papers absorb the ink too deeply.) Using a ball point pen, write clearly. You can change the carbon if you want to use different colours. Purple carbons are the best, as they give many more copies.

Drawings are best done using tracing paper. Make the original in pencil (with no carbon below!) then trace using a ball point pen.

If typing, place the spirit carbon and paper in the typewriter just as above – with paper on top and carbon (ink surface up) underneath.

Caution! Do not touch the carbon or stencil ink surfaces, as oils from the skin may stop ink from passing onto the gelatine.

When you have finished writing, the paper stencil is ready for action. Check underneath the paper and you will see the ink has stuck to the paper wherever you have written or typed. This stencil can be used two or three times, until most of the ink has been exhausted.

1

Preparing the gelatine

Put the brine in the larger tin. Place the smaller tin inside the large tin. All mixing is now done in the smaller tin. The tin with brine prevents the mixture burning. Put the water in the smaller tin; place the larger tin over a source of heat and bring both brine and water to the boil.



Now dissolve the gelatine in the water, adding it very slowly and stirring constantly. When the gelatine has dissolved, add the glycerine.

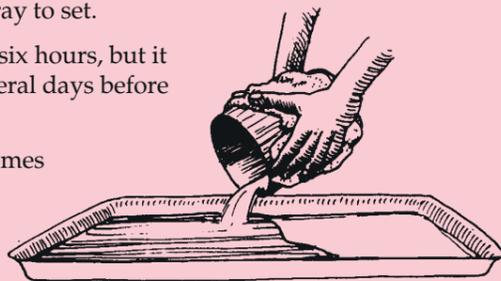


Continue heating for three hours – the brine should be gently boiling. It will be necessary to add water to the brine occasionally.

Pour the mixture into the tray. Be careful to wipe off brine to prevent it dripping into the tray while pouring. Immediately after pouring, pop any bubbles of air on the surface of the gelatine. Cover and leave the tray to cool. Be sure it is level. It takes about three to six hours for the tray to set.

The tray can be used after six hours, but it is better to let it set for several days before use if possible.

If the gelatine surface becomes damaged, the gelatine can simply be melted (using the brine bath) and re-used.



3

Now try out duplicating!

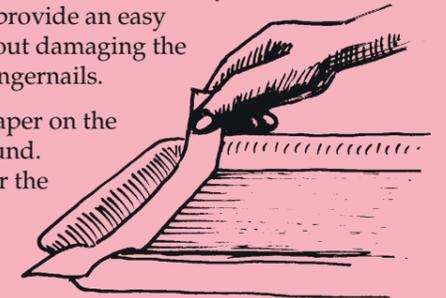


Using a sponge, dampen the gelatine surface with a little water.

Place the paper stencil, ink down, on the surface and press firmly all over. Leave for two minutes, then remove.

Place a narrow strip of paper at one end of the tray (but not covering the ink), to provide an easy way of removing copies without damaging the surface of the gel with your fingernails.

Place a sheet of duplicating paper on the surface. Quickly press all around. Remove the finished copy. For the first few copies this should be done quickly, but later copies must remain increasingly longer on the surface in order to get enough ink for a clear copy.



After enough copies have been made, remove the protective strip of paper and rub the surface lightly with a damp sponge.

You cannot use the tray again immediately. Just cover it and it will be ready for use in two hours.

If you will often need to do another page immediately, consider making a second tray.

Hecto Duplicator Company

If you find it impossible to find the right carbons, here are some details to order carbons and other equipment.

Hecto carbons come in packs of 20 in any one colour – purple, green, red or black. Purple ones give the most copies and black the least. Each pack costs £9.00, including postage.

You can also buy writing pens and shading pens in the same four colours for use with diagrams. These cost £2.00 each, including postage.

Hecto also supply other goods – including their own duplicating compound (if you cannot find the ingredients to make your own). This costs £20, including postage.

To order, please send a sterling cheque payable to...

Hecto Duplicator Company
Mawdesley
Ormskirk
Lancs
L40 2RL
UK.