

Foil-Backing Paper

by

Sebastian Marius Kirsch

A kind of paper that is highly valued by complex folders - sorry, folders of complex models - is *foil-backed paper*. It is home-made, and in this article I would like to describe its advantages, explain how to make it and also talk about my experiences. *Foil-backed paper* is produced by gluing a sheet of tissue paper - or any other kind of thin paper such as Japanese mulberry paper - to a sheet of aluminium foil, using spray glue.

To make it, you need the following tools and materials:

1. A draught-free but well ventilated workplace with a clean and smooth table,
2. 1-2 sheets of thin paper, like tissue paper or Japanese paper,
3. one sheet of ordinary kitchen foil, 45 cm wide,
4. a can of spray glue, such as 3M Spray Mount,
5. a thick cardboard tube as used for carrying posters, at least 50 cm wide,
6. a rubber roller or a towel,
7. a rotary cutter or a razor blade.

The procedure is as follows;

1. Cut all sheets of paper and foil to the desired size. The foil should be a little smaller than the paper.
2. Roll the sheets onto the cardboard tube, one after another in reverse order. If you want to glue paper onto both sides of the foil, start by rolling up the second piece of paper, followed by the first piece of paper and finally the foil. You should be careful to roll the sheets up tightly to avoid getting creases in them when unrolling. If you want to make several sheets at once, you can roll them onto the same tube, one after another.
3. Unroll the first sheet of foil onto the table. For covering up the table, I have developed a concept that works very well for me: I push the paper under the foil on the longer edge, making sure that it is only a few centimetres under the foil so that it is easier to pull it out again afterwards. On the short edge, I place the paper 1-2cm *over* the foil and weigh it down with two wooden slats. This prevents the foil from flying away when I spray on the glue, and after spraying there is a 2 cm wide margin which is not sticky and where I can grip the paper if necessary.
4. Spray the glue evenly onto the foil. Be careful that you spray only a thin layer of glue so that it does not show through the paper.
5. Pull away the newspapers and throw them away. (Please recycle!) Now you can allow a minute or two for the glue to become tacky.
6. Roll the paper from the tube onto the foil and smooth it down with the rubber roller or the towel.
7. If you want to foil-back the foil on two sides, you can now cut off the excess paper, turn the sheet over and repeat the procedure on the back. Then you cut the sheet to size with the razor blade.

As result, you get a material that looks almost exactly like paper - perhaps a little foil can be seen shining through, which is a very attractive effect - but which at the same time has the ductility of the foil. The paper keeps its shape very well and is easy to model, which is often necessary for three-dimensional models. Foil-backed paper is very forgiving; it can be treated excessively

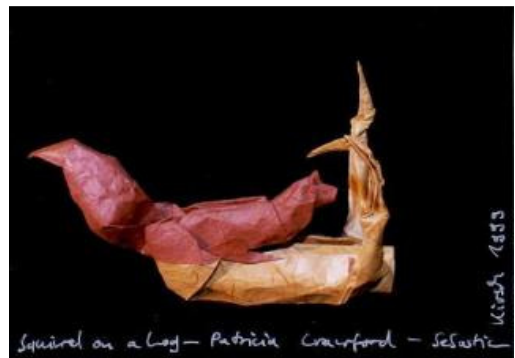
without ripping. Folds can be massaged into place, ie. one can push them into place millimetre by millimetre.

Of course foil-backed paper also has some disadvantages. One is that precreases are almost useless. You can hardly see them on the paper, and they have little influence on the foldability of a given line. It is hard to reverse folds, ie. you cannot turn a mountain fold into a valley fold easily. Therefore you have to abandon the idea of simply precreasing for a sink fold and then folding the paper in along the creases; instead you should try to get the paper perfectly flat first, using a blunt instrument - I use a chopstick - and then meticulously form the creases again, using tweezers⁽¹⁾.

Another disadvantage lies in the characteristics of the tissue paper: Tissue paper is almost always dyed with unstable colours that are not light-fast and fade easily. Because of this, I fold almost exclusively with thin foil-backed Japanese paper. In Germany, you can get this paper in many colours as wrapping paper; for special models you can also use handmade Japanese *washi* paper which is manufactured in weights of as little as 17g/m².

But for me one of major disadvantage of this Japanese paper is that it tends to get fuzzy while being folded. This is easily remedied by gluing the paper onto a thin sheet of plastic, using wallpaper paste. (You can also use a glass table or another smooth surface.) After it is dry, the paper can be pulled off the surface without problems; then you glue the paper to the foil, using spray glue. I use normal wallpaper paste, but you can also make your own paste from wheat starch or rice starch. You should also pay attention that the paste is not too thin; it should have the consistency of raw egg white. This is a trick I can only recommend; I use it with all the Japanese papers I fold⁽²⁾.

I wish you lots of fun with all your complex models!



Sebastian Marius Kirsch

(1) I can hear the purists screaming.

(2) You can also dye the paper while treating it with the paste; simply mix the paste with a water-soluble paint like tempera paint. I'm still experimenting ...