WORKING WITH OILED MANILLA

- **Written by DavidNeatauthor of 'Model-Making: Material and Methods' Oiled manilla available: Oiled**
- **manilla 510 x 405mm Oiled**
- **manilla 380 x 505mm Oiled**
- **manilla 510 x 810mm Oiled**
- **manilla 510 x 760mm**

Oiled manilla (aka 'stencil card' or paper) is a strong thin card treated with linseed oil making it even stronger and partially waterproof.

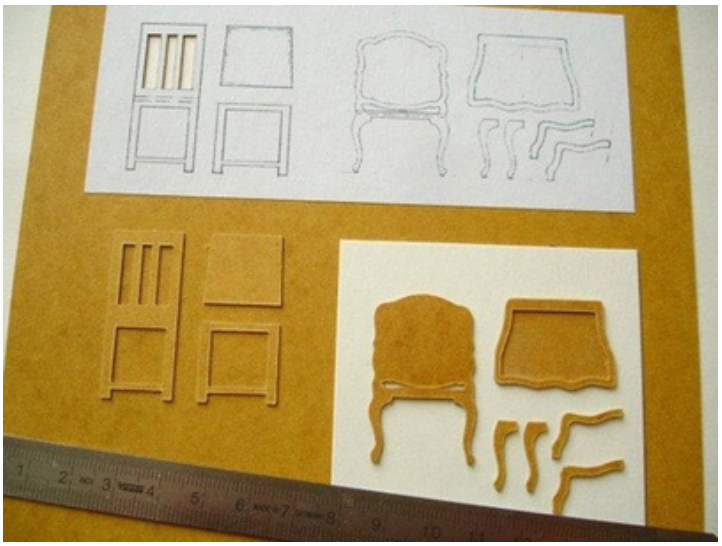
This also stops it from 'furring' .. that is, cut edges stay quite sharp even if handled a lot. All this makes it ideal for the creation of small-scale, intricate forms especially furniture.
It has quite a pleasing 'wood' colour as it is, but it will also accept dark woodstain or paint very well, even water-based such as inks or acrylics. It can also be scraped with sandpaper to give it the appearance of wood and this will be enhanced by staining.

Here is a method I've developed for making many forms of furniture, principally chairs but also cupboards and even tables, well suited to 1:25 scale.
Experiment to see if single or double thickness suit your project. For a start, I always draw plans for

furniture first in a larger scale such as 1:10 on an A4 sheet
(easier to design and draw) then reduce on the photocopier (40% to scale from 1:10 to 1:25). It means I can use the same template/design again in the future.

The drawing should lay the parts of the furniture out as if 'flat pack' ready for building. Remember that in designing this you have to take account of the final thickness of the card which will be approx. either 450 microns or 900 microns (0.45 or 0.9mm) using PhotoMount or another permanent spray adhesive, fix your 1:25 paper template onto the card. Spray a light covering .. never thick.

Test the fixing of the paper template by trying to move it around. It should be stuck fast almost immediately, if not you've used too much adhesive and you need to wait a little longer.
When stuck fast you can begin cutting. I recommend using a Swann Morton scalpel (No 3 handle) with a 10A blade for all intricate cutting.
Work from the centre outwards, cutting the interior parts first before cutting the outline and removing the piece. Having a small (15cm) metal ruler for this kind of work is very helpful.



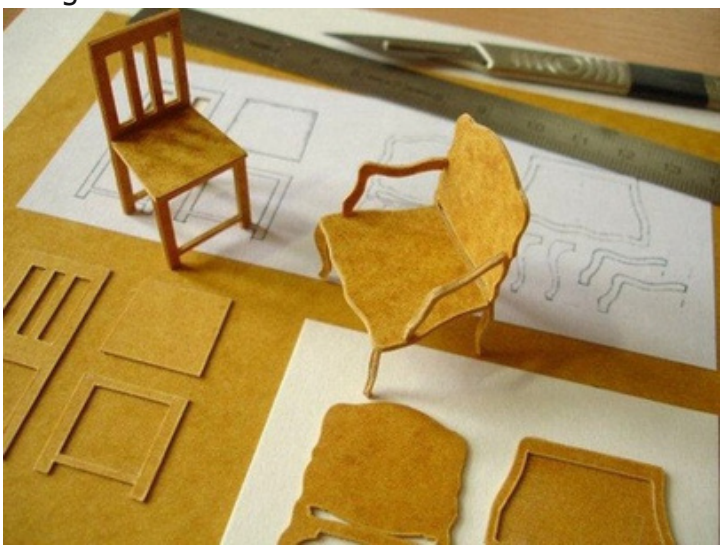
[4D modelshop says: Our oiled manilla is darker than shown in these images]

The first pass with the knife (when cutting anything except thin paper) should just be a guiding score to establish the position of the cut, without a lot of pressure.

You'll find the groove again with the knife point on the second pass and this time you can press harder.

When all the pieces are cut out glue them back onto another piece of card with the drawing side down.

You can use adhesive spray again if you wish but thinly spread PVA will also work for these small pieces.
If using PVA it is best to lightly scour the manilla surface with fine sandpaper to give a better key for the glue.



Test again that the pieces are firmly stuck and now you can cut around them using the raised edge as a guide.

Cutting through the second layer of card will be a little easier this time because the first layer guides the knife.

As a general tip, intricate cutting is always made a bit easier if you first do a rough cut fairly close (approx 1-2mm) outside the line.

When you cut on the proper line the material parts better because it has somewhere to move to.

I would recommend using superglue to fix the furniture parts together properly once you have cut them. PVA glue (especially a good wood) will work fairly well but will not bond as strongly.

Edges may need two careful applications of superglue because the first tends to soak in too quickly.

I've managed quite good results with the method of cutting/scoring/bending single thickness manilla.

For example the legs of these chairs and of the table following were drawn out as a continuous strip, cut out and carefully scored with a scalpel to bend them at the corners.

By these means one can create a slender scale form which is reasonably strong and fairly convincing looking, if not totally 'realistic'.

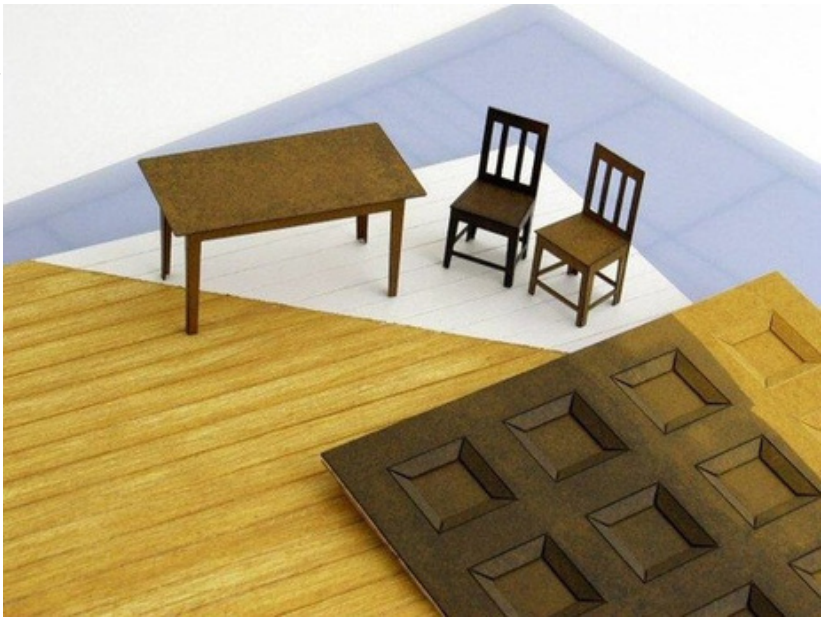
[Photo: Astrid Baerndal]

In the photo (right) the heavy panelling surface was created mainly by scoring/bending.

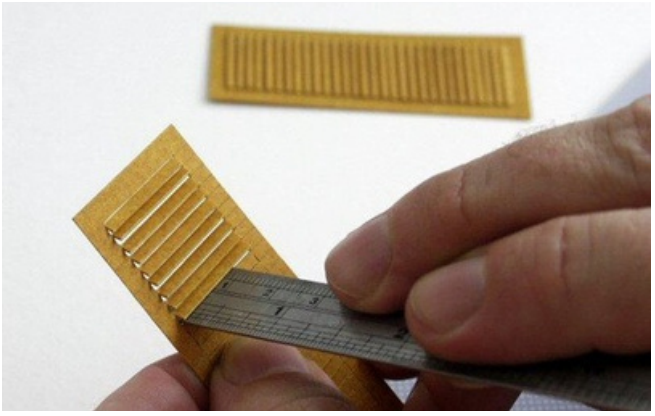
Here the forms have been darkened using spirit-based woodstain. [4D modelshop says: Our oiled manilla is darker than the product in these images]

Water-based media, including acrylic painted or rubbed in thinly will also work but there will be some warping of large flat surfaces.

It's best to let these dry and then carefully bend them straight again and even better if this can be done before assembling.



[Photo: Astrid Baerndal]

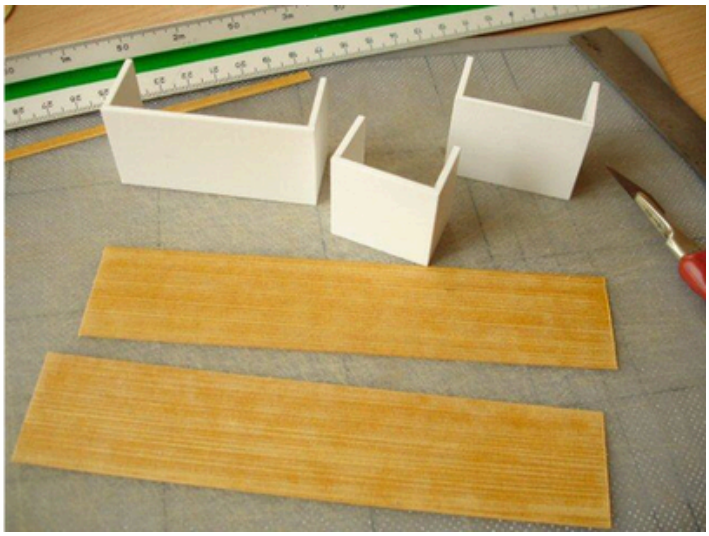


Here is a very convenient way of creating louvre shutters, also by cutting/bending, although it may need some practise!

I've cut horizontal slits in the card and carefully made a further 'nick' with the knife above each slit either side, so that the slats end up quite slenderly attached.

The slats can then be forced to bend, best by inserting a small metal ruler and tilting upwards.

[Photo: Astrid Baerndal]



I recently tested whether I could give the manilla a woodgrain look by firmly scraping with sandpaper (c. 120 grit) and this worked very well.

For these cupboards I prepared sanded strips which were then used to clad boxes made in PVC.

More detail can then be added using small strips. Spots of superglue had to be used to stick card to plastic.

The cupboards here are ready for staining. In addition to commercial woodstains, liquid shoe polish works well as a stain and will include some shine if more than one coat is applied.

A cheaper alternative to buying woodstain is to dissolve a suitable colour of oil pastel or even solid shoe polish in white spirit. Tests always need to be made first and below is part of a collection of colour swatches.

To the left is a scraped but unpainted sample next to two which have been stained with liquid shoe polish and a stronger commercial stain.

I've developed the technique of graining the surface mainly as an easier way to convey panelling or floorboards on a small scale, for which I would first prepare a large piece and then cut into strips following the grain.

In trying the grained surface when making the chairs or table components shown here it's important that the grain doesn't noticeably go in the wrong direction, which it will in the case of some cut-outs.

Here is a piece of panelled wall in preparation, with the first stage of the window structure.

Oiled manilla is the ideal material for managing a fine, controlled cut-out which can then be added to on top to give it more strength and profile.

Here I am adding very thinly cut strips of 0.8mm obeche wood to the card using slightly thinned PVA applied with a brush.

This is certainly delicate work, but not half as painstaking as it would be if the card template wasn't there to keep everything in its right place.

The combination is also surprisingly strong!

Lastly, making cut-outs in oiled manilla offered me a way of tackling the intricacy and regular symmetry of this brass chandelier form.

Each segment is carefully cut from a single card layer and superglued to a central styrene rod. Sequins happened to work well for the candle saucers and the rest was painted with a fine-tipped gold Edding pen.