COVERING WITH OS FILM

OS film is straightforward to use providing that you remember to handle it properly. It shouldn't be beyond the ability of anyone who has built a couple of indoor models of any kind*. I have set out the procedure in great detail, so it seems complicated. But as always, describing is much more long winded than doing, so don't be put off!*

You will need: A large cutting mat, Film, some ¼ sq balsa, some old fashioned new double edged razor blades, a can of photomount spray, couple of brushes (see below) and a tin of lighter fuel,

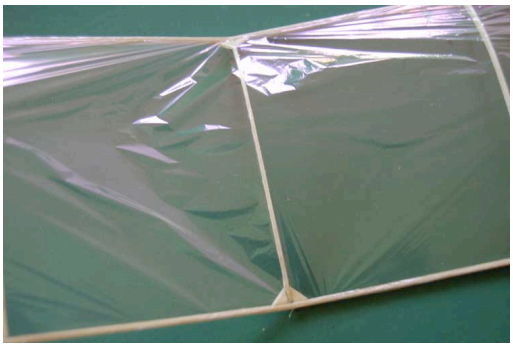
The most important thing to remember is that it snags and tears easily, so you need to work slowly, use an absolutely snag free cutting mat and take note of my comments re sharp blades for cutting.

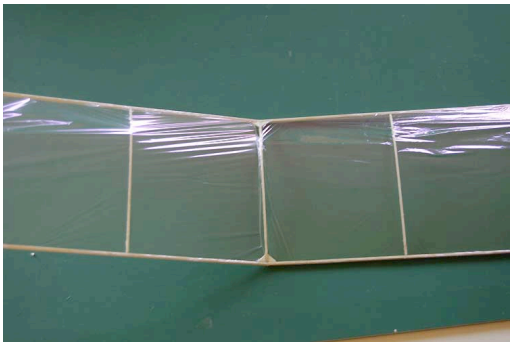
The procedure I use personally is as follows:

1. I keep the underside of a large cutting mat (or even better, a sheet textured matting card from Hobbycraft or similar, as this makes lifting the film easier) purely for cutting film and nothing else. I make sure that there is nothing to snag the film on it before starting.
2. I cover my flying surfaces flat and crack in the dihedral later. I make a frame from ¼" sq balsa which is at least 1" larger all round that the wing/tail. You collect a set of frames after a while. Remember that the film is only 12" wide, so you may have to get wing, tail & fin out of the same length of film that you cut off. So plan it before cutting it off the roll, or you will waste a lot of film.
3. CAREFULLY roll out the length of film you need onto the mat. BEFORE CUTTING IT OFF TO LENGTH INSERT SOME TISSUE BETWEEN THE REST OF THE FILM AND THE END OF THE FILM ON THE ROLL. This prevents the 'sellotape stuck down and impossible to find the start' effect. If film sticks to itself, it is nearly impossible to find the start again without tearing it.
4. To cut film, some people use a soldering iron (allowing for some heat shrinkage on the edges. I always muck this up, so I use the old fashioned double-edged razor blades (Wilkinson are much the best, as they stay sharper). I number the corners of the blade with a CD marker pen and ONLY DO TWO CUTS WITH EACH CORNER. More than this risks tearing the film. Pulling the film VERY slightly taut while cutting helps.
5. Smooth out the film on the mat by gently blowing and brushing with a large soft brush (I use a 2" wide proper watercolour brush, but a woman's makeup brush would be ok too). Once you have got it as smooth as you can, place the frame on newspaper and spray it LIGHTLY from about15" away with photomount. I use 3M Super 77, which is expensive , but comes out in a really fine spray, sticks well, and is lighter because it doesn't soak into the wood. It can be removed with Ronseal lighter fuel. It is hard to find. I get mine from http://www.lawson-his.co.uk. Place the frame (sticky side down obviously) carefully on the film, taking care not to move it sideways, which would create wrinkles. Hold the frame down and cut it away from the rest of the film. Try to disturb the rest of the film as little as possible, as you might need it for the tail later.
6. At this point, the film has masses of static, which can cause problems. I get rid of this by quickly steaming it on both sides over a kettle and leaning it upright to dry for about 5 mins.
7. Place the wing/tail on a NEW piece of newspaper and VERY LIGHTLY spray all over the top surface. Adhesive adds weight. You need JUST enough and

no more! Experts brush thinned adhesive on with a small brush. I always end up with the wing sticking to me, so I use the spray method. Don't be tempted to give it one more spray for luck! If the wing sticks to the newspaper, don't try to pull it off. You will break the wing. Have a tin of lighter fuel handy and gently brush some with a small brush between the paper & the wing. The fuel softens the adhesive and you can peel the wing off gently.

8. Place the sprayed wing/tail on your board (NOT the mat, which would get adhesive on it). Then carefully lower the frame & film onto it. The film will not stick all over initially, because of the arc of the wing section. I gently rub the film onto the TE and rear half of the wing to ensure it is stuck and then trim the film away from the TE until it will allow me to roll the wing enough to stick the LE and front of the ribs. Then I gently cut the whole wing free. You can clean the excess film from the frame by pouring a little lighter fuel and simply pulling the film away.
9. Let the adhesive dry and then we can sort out the dihedral. I do this by making a nick with a razor on the underside of the dihedral breaks. Then I place the wing on a piece of non-stick polythene, weighting the centre section down with pennies and propping the tips to the required height. You should build in any warps specified on the plan at this stage. Pay particular attention to the warps as they are the difference between 'Flying off the board' and not!
10. Set the dihedral with a small amount of glue PUT ON WITH A COCKTAIL STICK. And leave to set thoroughly. I use cyano, but purists use balsa cement in case they want to make adjustments later.
11. Once set, you can lift the covered wing off and fit the tissue tubes, etc.
12. At this stage you will have considerable slack in the film at the dihedral breaks. The trick for this is to thoroughly wet a small soft brush with spit and gently brush it along the rib at the dihedral break. The slack gets pulled in like magic and stays there!





Now for the tail …… Hope this helps. Tom Tomlinson 2008