

Tissue over Mylar Covering

by Graham Knight

From the SAM 86 Speaks, Editor Dan O'Grady

Tissue over mylar has been used by European contest flyers for some time, it gives a very rigid, light, stable and more puncture resistant finish. The method I have used successfully for a few years is:

Sanding seal the airframe as usual, then cover it with 5 micron mylar, using thinned contact adhesive, (thin with dope thinners until it doesn't string when you dip a brush in it) which *should* be brushed on the frame and allowed to dry. The mylar is then applied using a covering iron to activate the adhesive, just as if you were covering with any other heat shrink film. Use the iron to shrink the mylar just enough to remove any wrinkles.

If possible don't take the mylar right up to the edge of the panel, try to leave a strip of bare wood for the tissue to stick to. If you can't do this then make sure the tissue panels overlap each other at the edges so you get a tissue to tissue bond.

Next cut your panel of tissue slightly oversize, dampen it with a plant sprayer (don't soak it), lay it over the mylar and brush through with a thinned NON-shrink dope mixture until the tissue adheres. Then just overlap and trim the edges as usual. You will probably experience some white blooming from the water. This is easily removed by wiping over with a soft cloth dampened with thinners. Don't get it too wet or the tissue will separate from the mylar. One coat of dope should be enough. The mylar is airtight so more dope will just add weight.

Don't use shrinking dope unless you have a really stubborn wrinkle to remove. The water will shrink the tissue enough and using shrinking dope as well will just warp the frame.

A refinement is to use silvered mylar to create a very opaque covering. This is especially useful on scale models where you don't want the framework showing through.

Another is to create multi- colour designs using panels of contrasting colour tissue, overlapping them slightly at the join. The mylar underneath will support the join.

You should find the end result is lighter than tissue alone, the mylar being lighter than extra coats of dope, it is affected less by damp, and is more puncture resistant.

I have used this method for a few years now on models from outdoor Peanuts to 60" span Gas models and the covering on all of them is still as good as the day I applied it.

Try a couple of test panels to make sure you have the method right before trying it on a model. 5 micron Mylar, clear and silver, is available from our good friend Mike Woodhouse who also subscribes to this list, I believe he also supplies a leaflet explaining a slightly different method to mine.