

COVERING WITH TISSUE

To start with domestic tissue, I recommend using it in a dry application as it is prone to fall apart when wet and being manipulated. Some other types Like Esaki, Fuji, or Asuka can be used wet and won't fall apart. But they don't have as many colors available as domestic tissue. While it has been applied to a balsa structure using dope, the available sources have disappeared over time and many cannot use it indoors due to the smell. But the process of attachment remains the same with new materials.

The school type of glue stick is now being used and it is very quick and easy to apply. It requires only to rub on the balsa surfaces and attach the tissue to the same. Even if it has dried it can be activated with water using a brush in order to attach or move. One of the great advantages of the glue stick is that it is easily removed for repair or replacement. But it won't come off in the field if the morning dew gets on it.

Another type of glue that is used is white school glue. It can be thinned with water (about 1/3 water to 2/3 is glue). Painted on the balsa with a brush and then applying the tissue works well and this method has been used for years by many old timers in the arena of free flight. Do not use yellow construction glue. It is too hard to soften and remove in case of repair.

There is the question of what parts of the balsa structure to apply glue, whether glue stick or white glue. Some prefer to coat only the outer structure such as on the wing, the leading edge and the trailing edge, for example. While others prefer all areas that the tissue will contact. The choice is up to you.

The most frequent method these days to finish coat the tissue is with lacquer in the rattle can variety. Flat or shiny or satin is available. Three coats is enough to complete it. You can apply dope over it or on top of dope.

There is a new type of “dope” available that some have had good results from. It is water based thus no smell. It is called EZ Dope and can be used to attach the tissue and coat it. Use a broad brush (over 1 inch or more) to coat the tissue. Small brushes will tend to leave streaks.

Wipe the surface after sanding with an old t-shirt to pick up the dust. And by the way, don't try to coat the surface with whatever solution you choose in the same room you did your sanding. At least, wait some time for the dust to settle or it will show up on the surface of your model and you won't be able to get it off!

One of the most difficult parts to cover are the tail feathers. I say this because I have struggled over the years to come up with a method that works. This is what I do. I cover both sides with tissue that I have preshrunk. With tissue on one side, I will coat it lightly but not the other side right now. The reason is that the tissue will sag and adhere to the other side if I do both sides. Watch as it is drying and gently prick the tissue off the other side. Then coat the other side with the same method. When the rudder and elevator/ stabilizer are done, place them inside a book for a week.

The ways to preshrink are to take 2 pieces of 1 inch foam board and glue together. Cut an opening for the size you want to shrink. Attach the tissue with a glue stick and do't try to pull it tight. You are trying to shrink it! Thoroughly wet it. Do this twice. It will still shrink a bit even after this. The other method to use, especially if you are building a No-Cal, is to put the

tissue in ball and crush it as much as possible breaking all the fibers. Then iron it flat. It won't be perfect after this but it won't shrink at all.

Even after coating and pinning down parts, it may still be warped. It is easy to steam it to correct it. Use a kettle (I have a plastic plugin kettle for making hot water that I use a clamp on the trigger to keep bubbling). It only takes a few moments of steaming and holding until it is dry. Repeat if not correct. Don't worry about the tissue having sags. It usually self corrects top and bottom.

One recommendation is to make a box to carry the plane in. It will protect it from bumps and will save the coating from fading. Use bubble wrap to keep the plane from rattling around.

I use a trim iron when attaching the tissue. It reactivates the glue and allows me to pull out wrinkles. Also, after covering, I will use the glue stick on the edges I've missed and seal it with the trim iron. Makes for a nice finished job.

Easy Built and Volare Models are good sources for tissue and glue sticks. Look at Amazon for trim irons and glue sticks. Many use the UHU glue sticks, but Staples brand work just as well. Buy the 8.2gram size as they tend to dry out.

Gibbs
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