

FINISHING WITH PASTEL CHALKS

by Larry Marshall

*This is an article long-ago downloaded from the on-line
Windy Sock website*

I was asked a series of questions about coloring models with pastel chalks in the Free Flight Mailing List (FFML) and Joe thought it might be good to share my answers with Windy Sock readers. This is a technique that is being popularized and refined by Chris Parent, though he claims no credit for it. I've been communicating with Chris, Rich Weber, and Scott Dobberfuhr since last year's Geneseo non-Nats and we've shared what we've been finding as we apply these techniques to our models. The "best" techniques are probably yet to be found but below is a paraphrase of what I said in FFML and a description of what we've found to work.

Is there a write-up on the web somewhere about using chalk?

Scott Dobberfuhr put together a short description of the process. It's available at the EasyBuilt Models web site.

What kind of chalk is used?

I've found this to be important to the process but you can use just about any of the pastels as long as they ARE NOT oil based. Good art stores will have several brands and all will work to varying degrees. What we've found, however, is that the best are the cheap ones the [NuPastel](#) "hard" pastels. Generally these cost just under a dollar a stick. They come in a wide variety of colors and are probably the "cleanest" solution.

How do you keep it from smearing when you rub it into the tissue or "wipe everything off that isn't stuck?"

A bit of the history of the process of creating chalked tissue might illustrate what works and how those of us who are experimenting have come into these methods. While Chris doesn't take credit for it, he's certainly the guy that's gotten us doing this and has done the most to develop the technique. The planes he brought to Geneseo last year were absolutely gorgeous and his ability to easily repair tissue caught our eye as well. Early techniques (still used often) were to take the stick and rub it over the tissue. There isn't a lot of "smearing" as pastels that aren't oil-based are actually quite dry. If there are problems with this application technique it is because the sticks vary some in hardness (causing the required rubbing stroke to vary) and sometimes the sticks grab the tissue, tearing it. Also, small particles under the tissue are a bad thing because you can get streaking and/or tearing.

Addressing these problems, I suggested that it might be easier to grate the chalk and apply the resultant powder. Chris, being the kind of guy he is, grabbed this idea and raised chalking to an art form as he is now mixing exact color matches for things like PC 10 (WWI olive). So now

color mixing is possible. Also, the amount of chalk required dropped precipitously. My first sheet of tissue required an entire stick of chalk. I did a sheet of purple the other day and used about 1/4 of a stick. I suppose any sort of sanding device can be used to grate the chalk. I use a flat Perma-grit tool as it works quickly and it's easy to clean. If I'm doing a single color I just grate chalk powder off a stick and let the powder drop directly onto the tissue, simply dropping some here and there around the sheet. No precision is necessary. Another thing the powder approach did was cause me to look at the spreading tool (seems Scott had discovered this as well). Lots of chalk is wasted by a rough paper towel as a rubbing tool, and when you lift the paper towel off the tissue, dust falls off and things get messy. These days I use cosmetic sponges that I get at the dollar store, two for a dollar. These are REALLY smooth, the powder doesn't cling to them, and as a result, far less powder is necessary to get good color coverage. I think you also get a smoother application.

Do you mix colors or just get a box with a lot of colors to begin with?

One of the best and worst things about chalk is that it provides enormous variety. If you are willing to experiment any color is possible. If you don't, you might find all the choices frustrating. For instance, I made a nice purple for a Peanut by applying blue to red tissue, not applying purple to white tissue. You can get different purples by applying a red and blue mix to white tissue, or red to blue tissue.

Fortunately, experimentation is easy to do. To test a combination, you simply take a small piece of tissue, apply chalk, and spray it with Krylon Clear Coat. I simply tape these test pieces to sheets of bond paper and I have a file of them Don't forget to write the colors used next to your samples (I have). You must spray these samples with Krylon as it "clears" the tissue and lets the chalk color show through. You'll find the results look *very* different from unsprayed chalk tissue. You can also mix powders, adding white or black to lighten or darken colors and pretty much the sky's the limit. Some colors work better than others in my experience. For instance, light blues are hard to get any opacity, though the bottom of my Arado isn't bad. What I've found is that some of the light blues are turned clear by whatever causes purple glue stick glue to go clear when it dries, so apply light blue with a non-colored glue stick.

Do you start with white Japanese tissue?

Esaki tissue is the substrate for this technique but you can use all the colors. In fact (again from Chris), the best way to get PC 10 (olive) is to sun-bleach green tissue for an hour or so and then apply a mix of browns. Chris has also found that a *very* dilute solution (a strong solution will eat the tissue) of bleach will turn green tissue a yellow-brown. He did the camouflage pattern on his [PWS-10](#) by painting those areas that were to be brown with bleach, ending up with green/yellow-brown tissue to which he could apply green and brown chalk, and he produced a great camo finish. Post-it notes or shelf-paper masks allow sharp color breaks.

Do you chalk the shiny side or the dull side? Which side goes out?

More possibilities here. Typically you chalk the dull side, and that side goes inside the model. I haven't done it, but Scott, Rich and Chris have, at times, put chalk on both sides, again to adjust the resultant color and/or increase opacity. And if this doesn't give you enough choices, Chris has been using gray chalk as a background for silver paint.

Do you have to use any particular kind of glue to attach the tissue?

I use UHU glue sticks to attach all my tissue, chalked or not. I've used Elmer's stick and it works fine, too. I use a Coverite trim iron to set the glue, whether working with chalked tissue or not. This, and alcohol (which softens the glue) provides considerable control over the positioning/gluing process.

Do you shrink before covering? after? or apply the tissue wet?

To me, the principal benefit of chalk over other finishing methods is that once the tissue is chalked, it works just like plain tissue. I apply it just as I would plain tissue. Patches are nothing more than using pieces of chalked tissue, just as you'd patch standard tissue. I shrink it the same way, typically using rubbing alcohol (dilute water?). I also seal it the same way. This last thing does require that you pay a bit more attention as tissue opacity and thus chalk effect is affected. But applying Krylon is easy.

I've become a convert to using Krylon Clear Coat rather than nitrate dope on my planes. It has the benefit of not further shrinking the tissue. (Ed. Note: I wonder if non-taughtening nitrate from Aircraft Spruce would do equally well at not continuing to shrink?) Its smell is not as long lasting as dope, and it dries very quickly. The only drawback I've seen is that it doesn't seem to keep high humidities from causing your tissue to go limp. Then again, it always goes back to where it was before when it dries.

Do you apply Krylon or some other kind of "fixative?" before or after applying the tissue?

I use Krylon Crystal-Kote (#1301). The number is more important than the name as I've found #1301 with several names. Whether it's important to use Krylon is somewhat untested, though Testor's clear coats seem to work too. I suspect lots of clear coats will work but it's just an area that hasn't been tested much. Just as with dope, you clearcoat after you've covered the model and shrunk the tissue.

Advantages to chalking is that it is light, color variety is nearly unlimited, inexpensive, and less smelly than most paint methods. It also allows getting proper colors without making your plane completely opaque, maintaining a stick-n-tissue look which I find *very* appealing.