

PROVIDED BY WINDY URTINOWSKI AND REPRESENT HIS PROCEDURE FOR OBTAINING A SUPERIOR FINISH USING BRODAK DOPE

The TARGET is for a GREAT FINISH with 6 -7 OUNCES of weight

FROM BARE WOOD TO READY FOR SILVER

1. Sand the wood really smooth and flat. This is probably the most important step to save weight and produce the best finish. This saves filling material.
2. Sand the wood flat after each coat of dope. This is needed because the wood swells and has to be sanded flat again.
3. Put one coat on the flat of the ribs. This is to help prevent moisture absorption and swelling.
4. Use paint products of only one source. Windy recommends the use of Brodak dope products due to the expected consistency.
5. For first coats, thin the clear 50 to 60%. The first coat must be real thin to be absorbed into the wood. Coat all ribs, leading edges and trailing edges. Put on 3 to 5 coats and let dry between coats. Put on enough to get a slight shine on the wood. Sand lightly every couple of coats. One coat too much is better than one coat not enough. Windy uses a Striping brush for the ribs and edges.
6. Thin Brodak primer about 60% with Brodak thinner. Put on about 3 coats and let dry for at least 24 hours before sanding.
7. While sanding, use the dragging technique. Use 220 sandpaper and radius the ribs and all edges. Don't use the block sander but use the finger to find spots that need extra attention.
8. Prepare all the covering silkspan pieces for the wing, etc.
9. Dampen the silkspan with water or Windex. Dope the edges with thicker dope, about 2 coats. Apply the silkspan while the dope is still wet or sticky.
10. Do the bottom of the wing first. Do the top and bottom of the same wing panel to avoid warping. Re-wet the bottom when doing the top.
11. Secure the silkspan at one end (at the fuselage?). Work the wrinkles out as the rest of the silkspan is secured. Dope on top of the silkspan around the edges to get a good bond and continue to work out the wrinkles. Trim the extra paper.
12. Using a 50/50 mixture, brush the first coat on the wood. Put coats of dope on the entire surface using the crisscross method to prevent brush marks. Windy recommends a squirrel-hair brush.
13. After enough coats have been applied to make a slight shine, let dry and sand lightly.
14. Using a thin mixture (60%-70% thinner), float 2 coats of dope. Lots of dope so keep the work horizontal to prevent runs.
15. Apply the second coat before the first coat is dry.

16. Apply extra clear coats to all ribs and edges that come in contact with the paper. About 4-5 coats will do.

17. Spray clear on the wings, about a coat and a half. Let dry for 24 hours or until the clear powders when sanded.

18. Sand that last clear coat being gentle on the ribs. Use 320 grit sandpaper. Should end up with a slight shine to the wing.

19. Examine the wing for flaws before preparing the silver paint. The silver will be mixed 60% thinner and 40% dope to get a thin coat of silver.

FROM READY FOR SILVER TO READY FOR COLOR

* Special supplies:

* Sikkens Prepsol M600 - Available at automotive body shops only

* Gorhams Silver Polish - Used to remove scratches of 1200 sandpaper.

* Final Shine - Could be "Finesse-it II" by 3M, still checking

1. Mask areas not to be painted. Like, if the wing is mounted in the fuselage and the silver is to be applied only to the wing, mask off the fuselage.

2. Mix silver to have about 50% to 60% thinner.

3. Use of Brodak Retarder. Retarder helps prevent fogging during humid weather. Avoid, if possible, the use of Retarder in silver.

4. Spray the silver with about 25# PSI. Use the least amount of pressure possible. Spray to get good coverage.

5. Spray extra on edges and suspected trouble spots. If extra is sprayed only where it is needed, weight is saved.

6. Let dry overnight (at least 24 hours).

7. Prepare sandpaper. Cut a supply of sandpaper into about 2-inch squares. Use from 600 to 1200 grit wet/dry sandpaper. Windy prefers 1200 to slow and control the removal of material.

8. Wet sanding agent. It is possible to use water, soapy water, Windex or Sikkens Prepsol M600. You can guess that Windy prefers the M600. M600 evaporates so it is necessary to put some in a spray bottle to prevent excessive evaporation.

9. Begin sanding on bottom of outboard wing. This is done to gain experience with the sanding procedure. Also, repair weight in this area doesn't affect the models final weight.

10. Sanding open bays. Sand only until most of the silver is sanded off, mostly in center of the bay.

11. Imperfections at the edges of the open bays will fill with silver coats.
12. Keep the sanding area wet and also wet the sandpaper.
13. Wipe the other side of the wing. Since the wing is wet, the sanding material will run around the wing to the other side. If this isn't wiped off regularly, it will cake on the other side of the wing. Not good.
14. Use Brodak Rejuvenator. This material is good for building up low spots that are found during sanding.
15. Spray a second silver coat. Spray extra material on ribs, edges and repaired spots. Add some thinner and spray with minimum pressure.
16. Drying time. Let the silver coat dry at least 9 hours. This was needed in New Jersey; maybe we can get by with less time in Phoenix. It should take less time to sand this silver coat. Each succeeding coat should go faster.
17. Spray the third coat. Spray extra material on ribs, edges and repaired spots. Add some thinner and spray with minimum pressure.
18. Fluorescent lighting. This type of lighting is required to show flaws.
19. Fixes. Use Rejuvenator with a 50/50 mix with Brodak thinner to build up trouble spots. Use silkspan to cover larger divots in the wing.
20. Put extra coats of Rejuvenator on the patches.
21. Sand only the patches.
22. Put silver on the patches only. Let dry and sand lightly.
20. Spray and sand patches until satisfied.

FROM READY FOR COLOR TO READY FOR TOP CLEAR COATS

1. Painting sequence. Windy prefers to paint the trim colors first. He then masks the trim areas and paints the base color. The base color is usually the lightest color on the plane. By painting it last, overspray by darker colors is prevented. Also, handling mars are reduced due to minimum time for handling.
2. Paper Planning. Sketch the designs and color schemes on paper. Use this to decide trim scheme and painting sequence.
3. Multiple coats. Don't paint multiple coats in trim areas. One coat of paint is lighter than two coats. The pigmented paint is the heaviest paint to be applied.
4. Paper Patterns. Make paper patterns of the trim schemes to fit the model.

5. Taping Patterns. Cut holes in the paper pattern such that tape can be applied over the hole and adhere the pattern to the model.
6. Mask the trim areas. Paint clear dope on the edges of the masking tape. Use tin foil as the masking material.
7. Paint the trim. Let the paint dry then pull off the masking tape carefully, pulling back on itself. Use a credit card to knock off the edges of the painted area.
8. Foil residue cleaning. Use Gorhams Silver polish to remove the foil residue then use M600 to clean off the Gorhams.
21. Build a touch-up kit. This kit is composed of a small bottle of each color used on the model with just enough paint in each to wet the bristles of the brush.

FROM READY FOR CLEAR COATS TO READY FOR BUFFING

1. Humidity fogging. High humidity causes fogging in a coat of paint. Check for this if the possibility is suspected. Spray a small part of model then wait 1/2 hour for result. Adding Retarder to the paint helps but a better solution is to wait for a drier day.
2. Application of the first coat. Mix clear 50/50 with thinner. Spray on a dry coat to prevent affecting letraset and other trim elements. This coat will, probably, orange peel. Spray at back and forth angle to prevent paint buildup on only one side of rib.
3. Extra coverage. Spray extra clear on ink lines, trim edges, ribs and wing edges.
4. Drying time. Let each coat dry at least one day. This allows the paint to gas off. If another coat is sprayed on too soon, thinner is trapped in the previous coat.
5. Examine the model. Look for flaws caused by the application of the clear coat. Examine the fillets, ink lines, trim, etc.
6. Make repairs. Do the repairs before the next coat.
7. Ink on clear. Sometimes the repair ink won't stick to the clear. To solve this, rub some Talcum powder on the area with a Q-Tip cotton swab and wipe excess off with other end of the swab.
8. Thin second coat. Add thinner for the second to get about 45% dope and 55% thinner.
9. Spray second coat. Spray extra clear paint on ink lines, trim edges, ribs and wing edges. Let dry a minimum of one day.
10. Sanding the clear. Sand with 1200 wet/dry sandpaper and the Sikkens Prepsol M600. Don't sand the ribs, only the open bays of the wing.
11. Patches. Patch and touch-up the finish where the sanding went through the clear coats.

12. Spray the third coat. Thin the clear even more to about 40% dope and 60% thinner. Spray extra clear on ink lines; trim edges, ribs, touch-ups and wing edges.

13. Spray the fourth coat. Thin the clear to two parts thinner and one part dope. Spray extra clear on ink lines, trim edges, ribs, touch-ups and wing edges.

14. Total clear used. The total clear should amount to from 1 and 1/2 to 2 unthinned quarts.

15. Waiting time. Wait more than 3 days before sanding and/or buffing. Wet sanding with 1200 sandpaper and buffing with the Silver Polish.

16. Final Shine. Use no sooner than one week after last clear coat. Final Shine is the name Windy used for the last shining material. This is used after the Silver Polish.

17. Buff-through spots. Do spot repair with touch-up and spot spray with clear.

18. No waxing for at least one month. The wax seals the surface and prevents any further gassing off.

FROM READY FOR BUFFING TO SPECTACULAR SHINE

1. Sanding & Buffing materials:

* Wet/Dry sandpaper 1200 grit

* Sikkens Prepsol M600, the Wet for sanding, found in body shops

* Gorhams Silver Polish

* Final Shine by 3M, (probably Finesse-it) found in auto paint stores

2. Brodak drying time. The dope will dry in 24 hours but will continue to harden for a number of days. For a reasonable hardness and not too much waiting, Windy recommends 3 to 5 days. The harder the dope is, the easier it is to sand.

3. Plan the sanding/Buffing. Do the small parts first. Do the wood areas next. Do the open bay areas last. Saving the open bays for last allows a bit more drying time and more experience gained on the other areas.

4. Buff through. It is inevitable that there will be spots that buffed through the clear. Windy says that, if you don't get a few of these, you have too much clear on the model. Don't panic, touch-up the spot with the appropriate color, let it dry, spray on some clear only on the spot, let it dry and very carefully buff it out with the Gorhams.

5. Fillet pull-up. As the dope dries and shrinks, there may be some fillet lifting of the dope (Windy's fillets are really small). Use a pin to punch some pin holes in the bubble, rub some CA through the holes and paste the fillet back down then touch-up the area.

6. Sandpaper. Cut up sandpaper into about 2-inch square pieces. Cut enough to last a while.

7. Metal Flakes. These can be obtained from "Micro Flakes". These are thicker than other trim pieces and cause an excessive build-up of dope to cover. This increases the model weight and may not be desired.

8. What to rub with. For the Gorhams and Final Finish, Windy uses old athletic socks. Back to paper towels when those run out.

9. Start on the bottom of the stab. Use the sandpaper to get the finish perfectly flat. Use the hand to find spots that need extra sanding.

10. Gorhams Silver Polish application. Use the sock or any appropriate material to apply and rubout with the Gorhams.

11. Final Shine application. Use the sock or any appropriate material to apply and rubout with the Final Shine. Use a Q-Tip to rub the corners.

12. Do small sections at a time. This helps to see progress. Example:

- * The bottom of the Stab (each side)
- * The top of the Stab (each side)
- * The Fuselage under the Stab
- * The Fuselage above the Stab
- * The Fuselage between the Stab and the Wing (each side)
- * The bottom of the Fuselage under the Wing
- * The top of the Fuselage above the Wing (Be careful with the Canopy)
- * The Fuselage bottom in front of the Wing
- * The Fuselage top in front of the Wing
- * The bottom of the outboard Wing
- * The bottom of the inboard Wing
- * The top of the outboard Wing
- * The top of the inboard Wing

13. Candle all work as you go. Make repairs to Buff-through areas as you complete each section.

14. Wing open bays. Do one open bay at a time. Do not sand across ribs.

15. Time on the Wing. Windy spent about 5 hours on each Wing panel. Don't rush it.

16. Touch-up areas. Go back and rubout the areas that were touched-up. Use Gorhams Silver Polish to remove overspray.

17. Oil & grease. M600 can be used to remove residue, oil and grease.

Why not visit Windy's Website?

[Windy Urtnowski](#)