Painting Procedure
Aeroglaze Z306 Flat Black Absorptive Polyurethane

1. Applicable Surfaces -- Generic aluminum or stainless steel surface works perfect. Remove grease and machining oil before use.

2. Primer -- Before using Z306, apply Primer to provide the surface excellent adhesion. Primer consists of two parts, 9924A and 9924B.

3. Shaking -- Primer 9924A itself need to be shaken or stirred in its own container before doled out. When the can opened, you should see some yellowish half-transparent resin on top, but there is another separate layer of the red pigment at bottom. Mix them to become uniform. 9924B no mixing necessary, it is already homogeneous liquid itself.

4. Usable Pot Life -- 8 hours. Plan accordingly. Storage Life is 6 months and 1 year for 9924A and 9924B, respectively, in unopened original containers.

5. Merging Part A and B -- Add 9924A and 9924B with the same volume. Syringe looks working for volume measurement but it becomes awkward and inefficient soon. We use a measuring spoon and scaled beakers to take parts out from the containers. Stir well and wait 15-30 minutes before adding thinner in the next step. Make sure to fasten the tin can lid tightly after
use, if not, the paint inside will become easily harder.

6. Thinner -- Aeroglaze 9958. To provide better flow properties, the Primer needs thinning. The amount of thinner is somewhat flexible but no more than 20%, in volume, of the mixed Primer. Stir well after adding thinner.

7. Siphon / Spray -- We use a gaseous nitrogen pressing spray set. Gas pressure of about 50 psi used to be good.
8. Primer Application -- The best film thickness is 0.3-0.5 dry mils. It is tricky to make this exact thickness; however, you can get some intuition by repeated practice. The most irritating and difficult part in the job of Primer application is the thread-like flying flakes, which is persistently produced during the Primer spraying. You need to find a fast airflow spot in the fume hood and use good angling to avoid contamination from the flying devil.

9. Clean-up -- Right after you finish an individual painting session, wash the painting tools with Acetone. The more time you wait, the more difficult to remove it. Pay special attention on the clearing of the siphon nozzle part. Use appropriate chemical disposal containers.
10. Primer Curing Time -- Lower humidity and higher temperature will dry and cure faster in general. In room temperature and normal relative humidity, 3 hours is enough for handling and topcoating of the black paint Z306. There is no upper time limit for topcoating, practically.

11. Black Paint Z306 -- Shake or stir well the paint in its container before use.

12. Partition from the Bottle -- Use whatever tool to take out some amount of the paint, but you should measure the volume. We use a spoon and scaled beakers. Again, be very careful to tighten back the lid of the Z306 container. You may use a small mallet.
13. Thinning -- Add 10-20%, in volume, of Aeroglaze 9958 thinner into the black paint. If you took out 5 spoons of Z306, then you can use 1 spoon or a bit less of Aeroglaze 9958, for example.

14. Usable Pot Life -- There is no reported pot life for Z306, but it is recommended to finish your job in a few hours. If you feel the paint changed somewhat stiffer than the earlier, you may add a few more drops of thinner and mix again during the job. Storage Life of Z306 is 1 year, in an unopened original container.

15. First Coat Z306 Application -- Similar way to the Primer application. Spray just enough thickness to make the Primer layer unseen. If the target part is too small or complicate, you may use a hand brush for that one.

16. Curing Time – Higher humidity and higher temperature will dry and cure Z306 faster in general. In room temperature and normal relative humidity, 4 hours is good for handling and another coating of Z306. However, the next coating should be done in 24 hours maximum. Under the acceptable curing conditions (see Figure 1), Aeroglaze Z306 is known to develop its ultimate properties in about 7 days.
17. Clean-up -- Right after you finish a painting session, wash the tools with Acetone. The more time you wait, the more difficult to remove it. Pay special attention on the clearing of the siphon nozzle part. Use appropriate chemical disposal containers.

18. Second Coating of Z306 -- Same process as the first coat Z306 application. Do this job between 4 and 24 hours after the first layer painted.

19. Clean-up -- Same as above.

20. Baking Finals -- It is known that baking the painted parts provides better outgassing properties for the Primer and Aeroglaze Z306 as a whole. We apply 150F, 24 hours in oven according to the recommendation from a Tech Service Technician with the Lord Company.