Mohawk Plastic Instructions

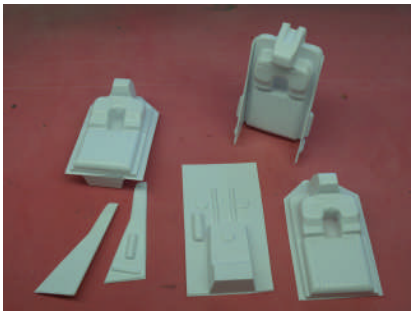
The plastic you will be working with is high impact styrene (white) and PETG (clear). The white plastic must be bonded to each other with model airplane cement. I prefer the thinner cement that Testors produces with the needle applicator. See one of the photos. It sets fast but takes a day to dry completely. When I say dry over night it is because the next step will be sanding, the plastic wont sand well if it has a solvent trying to get out. To fill the seams in the plastic model seam filler is best but with a little scuffing Bondo brand auto body filler will work too. If you use liquor primer, use light coats and allow it to dry completely. It will soften the plastic.
Enamels and acrylics are best. If you have to use CA on this plastic, do not use kicker it will cause it to instantly crack. Bend a piece of scrap and give it a try.

PETG is the stuff Coke uses to make their plastic bottles. Use the paint you want to, it's tough. To bond it is another story, it must be scuffed up a little and Epoxy works best. I prefer JB weld because it's thick and sticks to any thing. CA will work but it leaves a white haze on the windows as it sets. I use plastic wrap to protect the fuselage while I bonded the canopy to the hatch. If the hatch will not lie flat pins can be used to make it behave.

Pilots. Wet sand the pilots heads on a flat surface with 180 grit wet dry paper until the plastic around the bond joint gets thin. You can hold up to the light to check your progress. If you break through STOP. Use a hobby knife to finish the job and test the fit. Make a circle of cement on the table and dip the pilots head in it for an even application. Then bond the head halves together. Allow it to dry overnight then sand the seam. Cut the neck hole in the torso then bond the head on. I tried to design them so you could have them looking in any direction you want them to be. The torso is trimmed with a 1/8 inch flange and bonded to the cockpit with silicone. (Silicone will put up with hard landings and vibration better than the rest of the adhesives.)

The **instrument panel** bonds to the glare shield with the gauges recessed. The center console will require trimming to fit the instrument panel. The small boxy panel goes on the back wall. In addition, the overhead panel has a very small flange to bond with so be careful with the knife. It also should be painted before you bond it to the canopy with silicone.

Seats Bond the front and back halves together. Be careful that the detail in the backside is not part of the bond. Use scrap plastic to bond a plate to the inside of the seat side. Bond the seat sides to the seat then allow it to dry over night. Sand or trim the excess plastic away from the seat. Bond to cockpit with silicone.



Nacelles

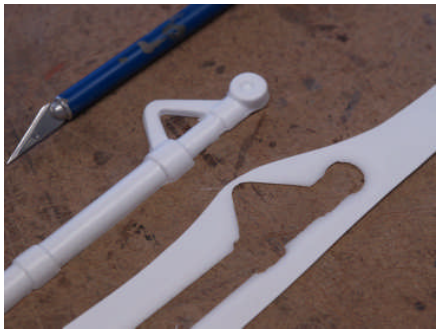
One half has a bond step while the other has a trim line formed in it. Trim to the line and on the other, trim to get the widest bond but remove the portion of the plastic did not touch the form tool. (Remove the roll for a flat surface) At the front, trim ½ inch from the step. This lip is needed to attach the cowl, save the scrap. Where the nacelle meets the wing, leave your self about ½ inch to make a bond.

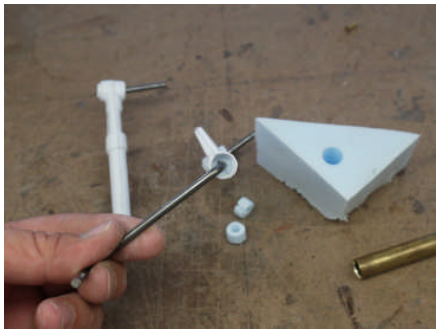
There is webbing at the back of the nacelle; there is nothing I could do to beat it so we have to put up with it. A little epoxy on the inside after the halves go together will allow you to sand them away. When you bond the halves together do the top first, **use the step** for the cowl at the front for alignment. Apply finger pressure to make the bond until it sets. Bond the bottom using the cowl step for alignment. Use the scrap pieces from the front to build up a little thickness at the top and bottom of the nacelle; this is to give the nacelle some thickness for the cowl mount screws to bite into. Trim the exhaust tube ¼ inch from the lip of the tube. Use the pattern to cut a hole in the top aft portion of the nacelle for the exhaust tube piece. Remove the bond step in the nacelle where the tube's flange makes contact for a good flat bond. Bond in place. Trim the cowl to the line and fit it to the nacelle. Note there is a #1 and #2. It is marked on the cowl face.

When it was time to mount the nacelle and its position has been determined, I marked the wing with a felt pen to know where it would be placed while bonding. To get a good bond to the wing we have to get to the wood. I used a sharpened steel rod about the size of a throwing dart to make holes through the Monocote. About one every 1/8 inch, not all the way through but enough to make it through the plastic film. 30 min. epoxy will not only buy you time for placement but will give the epoxy time to go into the holes.
As for the belly pan. The fit is tight and you might have to fight it a bit to get it in place. However, test the fit before applying the adhesive.

Scoops. . . . .webbing, bonding. Follow the procedures like the nacelles.

Wheel struts The wheel struts trim and bond the same way the pilots heads did the difference is you must trim them to length first because they are assembled with the bent wire installed. These little plastic parts will see some abuse so after the glue sets and you have sanded the seams wrap aluminum tape around the strut area to help them out. At the top, I made some foam inserts to hold the strut centered then packed the top ¼ inch of the strut with silicone. I also drilled a hole in the bottom and filled the axle with silicone.





Tanks

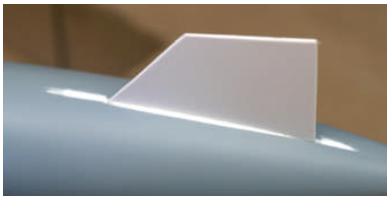
This is instructions for my OV 10 tank but the procedure is the same.

To begin assembly cut the tank doublers from the center of the parts sheet. Separate the doublers by cutting them in half. This will form a stiffener along the sides allowing you to apply clamp pressure later. Only about ¾ inch at the center, tapered to a blunt point at the ends of the doublers is needed.

Cut the tank sides from the parts sheet leavening a 1/16 flange. Apply glue (sparingly) along the inside of the tank half near the flange edge. Bond the doublers to the inside of the tank with the doubbler above what will be the tank half seam. Apply glue to one of the doublers along its length near the flange area and assemble the halves. Check alignment at the ends and allow the glue to set. Spread the tank halves open wide enough to apply glue to the same area as before along the other side and allow the glue to dry overnight.

Sand away the flange until the halves are flush, and then apply model seam filler. Once the filler has been sanded smooth, apply your primer.

Scrape away the primer where the fins will be bonded. To bond the fins, apply model adhesive to the edge of the fin by using your finger in a wiping motion. Have a rag handy to keep your fingers clean. Allow the glue to dry for an hour before handling. Then paint.



The pylons for the model are not on the plans but construction is simple. They were done with the same procedures as the aft fins using thick (1/4) Balsa at the ends so I could sand them to the shape of the tank or wing. The rocket tube came from a local aquarium shop from their filter section. In addition, the rockets are dowels sanded to shape in a hand drill and bonded in a group and stuffed in the hole.

Spinners

You will need aluminum tubing and vinyl tubing and one sheet metal screw to attach the spinner. The vinyl tubing should fit the threads of your motor tight. The aluminum tubing is used to keep the vinyl tubing straight and compress the portion that goes over the motor threads. The other end of the tube will be used to accept the screw.