

Molding & Casting Slot Car

Products used in this How To:

- * Original Car Body
- * Plat 55
- * Alumilite Regular
- * Alumilite Synthetic Clay
- * Rubber to Rubber Mold Release
- * Excel Knife
- * Corrugated Plastic
- * Sand Paper
- * Popsicle Stick
- * Cups



This How To process will walk you through step by step the procedure for making a two piece squish mold and casting a slot car.



This is an HO scale slot car body we wish to reproduce.



First and foremost it is important to have your original perfect. Sand out any imperfections, scratches, or flaws with a light sand paper or steel wool. If you wish your parts to be high gloss, make sure your original has your desired surface before making the mold. The mold material will pick up every detail including stickers, decals, etchings, and scratches that will show up in every part you cast.



Once you have the original perfect, decide what material you are going to use for your mold box. You can use styrene, corrugated plastic, wood, metal, foamcore, posterboard (shiny side), or any other non-porous material. Here we chose to use styrene for the base and corrugated plastic for the side walls of the mold box.



Using Alumilite's Synthetic Modeling Clay we filled in the car body with clay to act as one half of the mold. This prevents the mold making silicone from flowing inside the car and removes any undercuts. We will use the bottom edge of the car as the parting line.



Once we've clayed in the inside of the body, we carefully clean off any excess clay that filled in any of the detail on the outside of the car body. (Take the time to clean off all the clay out of the detail - this will allow you to make a flawless mold that picks up all of the detail from your original)



Place the clayed up car body on a bed of clay. This will act as the base for the second half of the mold that will be squished into the mold of the outside of the car body.



Once the car has been completely clayed up, assemble and seal the mold box using the same modeling clay, hot melt glue, super glue, or any other sealing material.



You are now ready to mix and pour the first half of your silicone mold. We used Alumilite's Plat 55 silicone mold making rubber because we wanted a more firm mold where the two halves of the align well. It also enables us to clamp or hold the mold together without distorting it. QuickSet mold rubber is another good choice as well as High Strength 2 if there is a little more undercut to your original. Plat 55 is thicker than QuickSet but has a much higher tear strength.



Once the silicone is mixed completely, pour it slowly into the mold box from one corner. Let the silicone flow around the master naturally. Avoid pouring the silicone directly over the master to reduce the chance of trapping air pockets against your original.



Let the silicone set up over night.



Demold the first half (completely remove all the clay), apply Alumilite's Rubber to Rubber Mold Release, Alumilite's UMR or a thin layer of Vaseline to ensure the two halves of silicone do not bond to each other. Then mix the second batch of silicone and pour the second half of the mold.



Allow the second batch of mold rubber to set up overnight. Remove the mold box and separate the two halves of the mold. Then simply remove your original and you are ready to start pouring slot car bodies.