

# Tail Light Casting w/o Equipment

## Products used in this How To:

- \*Molds
- \*Alumilite Clear
- \*Alumilite Dye
- \*Gram Scale
- \*Microwave or Oven
- \*Paint Brush
- \*Excle Knife
- \*Stir Stick
- \*Cups



We are going to take a look at the process for casting clear lenses without the use of equipment. This process will walk you through each and every step.



The first step to casting your tail light lense is to warm your mold to help the resin cure properly in thinner sections. We recommend 15-30 minutes at 150 F or 1 minute/lb of rubber on high in a microwave. This will make the molds warm to the touch but should not be so warm that you can not hold onto them.



Next open up your Alumilite Water Clear kit.



Measure equal amounts of A and B. Shown in this picture is an inexpensive digital kitchen scale Alumilite sells that is perfect for measuring silicone rubber and resin.



After you measure out the A side, add a few small drops of dye to color the resin. Here we will add a few extra drops of red to help differentiate resin in the pictures.



The best way to consistently color every casting is to add the dye to the A side container. If you don't want to color all of your Water Clear, count the drops you add to the A side and repeat this same number for every cast piece you pour. The more dye you add, the darker the color. What you see is what you will get so only add as much as you would like to see in your finished part.



Now add the same amount of B side as you did the A side. This will keep you on proper 1:1 mix ratio by weight.



Put your stir stick down to the bottom of the container and stir the resin extremely slow for 2 minutes. This will drastically reduce the amount of air bubbles you create as you mix seeing as though we will not be using equipment to help us eliminate bubbles in our casting.



Start by pouring some of the resin down the side of the mold very slowly. Fill the mold up approximately 1/2 way.



Next, paint the remaining resin onto the male portion of the rubber mold. This will reduce the surface tension from that half of the mold and help the air bubbles migrate to the seam line and out of the casting.



After you've painted some resin on the male half of the mold, line up the locators and on an angle, slowly lay the male half onto the female. This will allow the air to be squished out the seam and reduce the amount of air that will be trapped.



Simply lay the top half on the bottom and do not push it down. Make sure the locators and mold are in the proper place. Then walk away from it. Let the mold sit for a minimum of 2 hours. If your part is thinner than 1/8", it is recommended to post cure the part in an oven at 150 F for 30-60 minutes to help the thin resin piece to cure properly. Allow the mold to cool before demolding.



Once the resin has cured, separate the two halves of the rubber mold.



Here you can see the lense with flash around the part still sitting in the female half of the mold.



It is often times easier to remove the flash while the part is still in the mold. Simply peel it away from the seam line and throw it away.



The other option is to simply pull the part out of the mold and trim it off with an Exacto knife.



Here you can see the original lense (left), along with the two piece rubber mold (top), and the darker cast reproduction (right). As you can see our cast replica is darker than the original. If you wish to match an exact color, simply run small test batches to figure out the exact amount of dye you need to match the color you desire. Then cast your piece with that amount of dye added to the Water Clear.