CV Boots

Materials List:

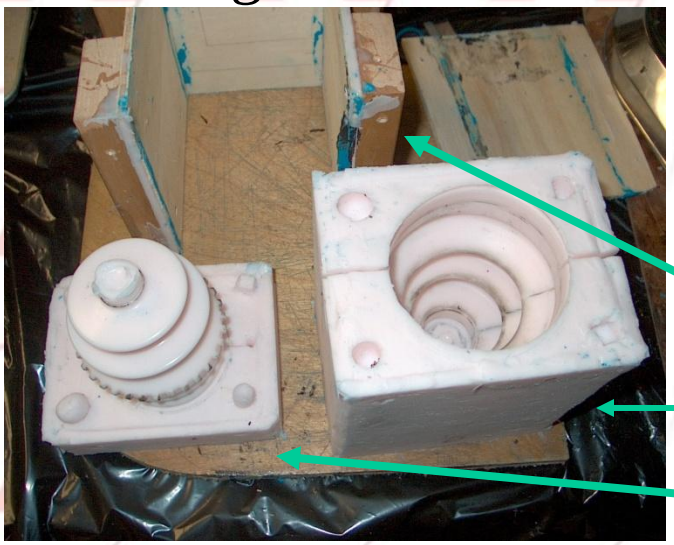
1. Mold box that can be reassembled
2. Alumilite High Strength 2 Silicone Rubber
3. Alumilite Flex 80 Casting Resin
4. Plastic Cup with small funnel attached to bottom
5. Large Syringe
6. Pressure Pot
7. Vacuum Degassing Equipment

- ## Making a Mold for the CV Boot –

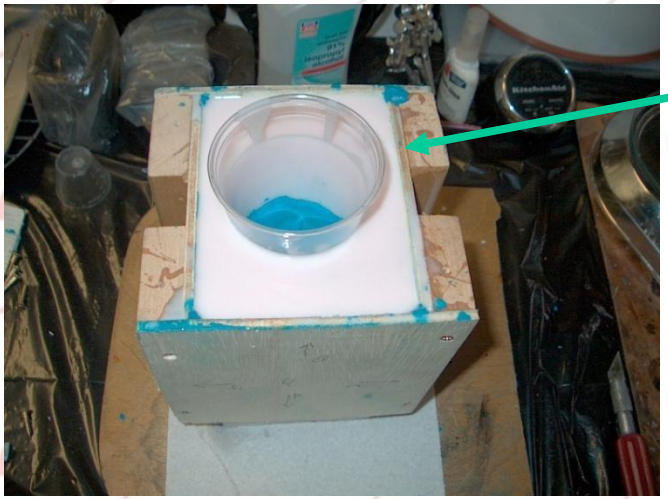
- A few things to take into account when making the mold

1. The size of the mold has to fit the compression chamber you are using
2. Make a wood box to hold the silicone rubber when making the mold. Make it so it can be used to house the mold when making the part. This will mean it has to be screwed or bolted together.
3. Know that this will be a two part mold that you will have to push the rubber into the mold.
4. Understand how the part is to de-mold the part and how to put it back together. Because the mold box will be giving extra strength to the mold, keeping it the normally required ½ in. thick walls may not apply.
5. Degassing before mixing and Compressing the casting material once poured into the mold are requirements.
6. Preheating the mold is still a requirement.

Making the Mold Box

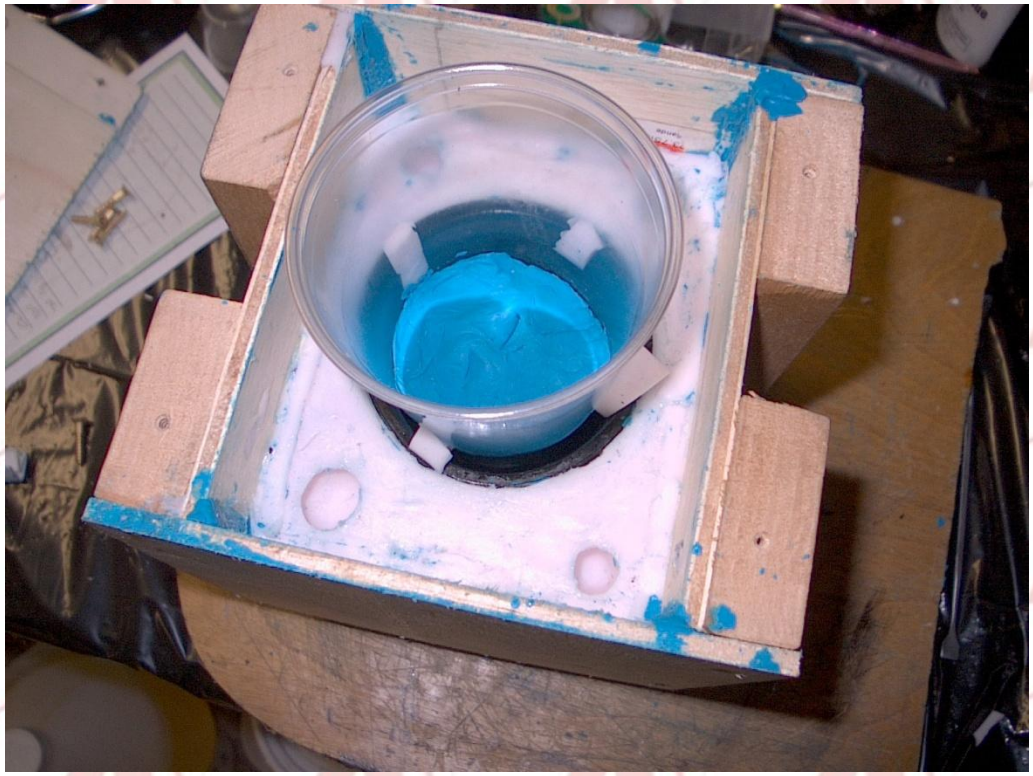


- Here 1x2 in. solid wood is used to make the 4 corners to hold the ¼ Plywood sides. Remember to cover all sides as they may be needed when making the mold and when pouring the casting. Screwing them together will allow them to be taken apart to remove the mold and locking it back in place. Remember to mark all parts and arrows to show where it goes in relation to the rest of the mold box.
- Review the videos and instructions in the "How to's" on the Alumilite Web site.

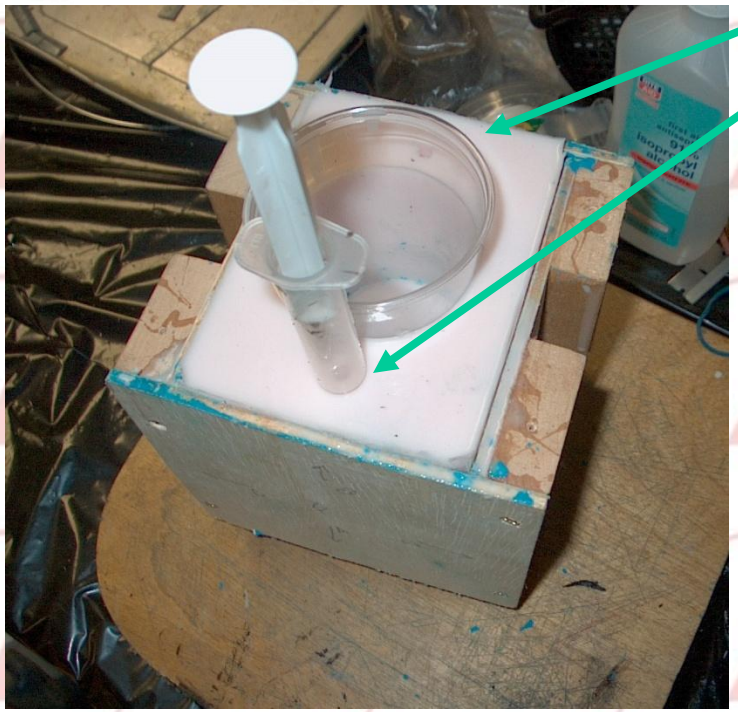


- In this picture the mold box is moved up to house the top half of the mold. The styrene cup and a funnel on the bottom of it takes up much of the inside of the top half of the mold allowing easier demolding after the part is cast.

- The bottom of the mold as stated before is very straight forward just remember to fill in the bottom and top with clay and have a small amount of clay above the small end so the second half of the mold will have something to center it on.
- This picture shows the second half of the mold being made ready. A styrene cup is used to fill the opening and small funnel is used on the bottom to form a thicker mold toward the bottom than the top. Then small cuts of old High Strength 2 (HS2) silicone rubber from Alumilite is used to keep the sides of the cup centered. This is done to have a thin wall of HS2 on the inside so it can be squeezed when demolding the part. Keep the cup because it will be used when casting the part. Slide the mold box up to give room for the second half of the mold. (Note: Clay is used in the box to ensure there are no leaks.)
- When pouring the HS2 into the small areas have a sip straw or other narrow stick to move the HS2 around to remove any bubbles.



Casting a CV Boot



Bleed and pour holes were made with a drill after the mold had cured. And because of the thin wall of the mold the holes were drilled
Here

And here

Once the holes were drilled the small cuts were made to the outer edge of the boot.

- Take the mold out of the box (4 sides) place on a paper plate and heat for about 2 minutes in a microwave.
- Remove the mold and put it back in the box making sure the box is above the split in the two parts of the mold and compresses the sides so any of the casting materials will come out. Place the styrene cup back into the top half of the mold, not too tight just enough to keep the sides from ballooning inward when the Flex 80 is poured into the mold.
- Then using one of the holes you made in the mold to push material into the mold, place the oral syringe (this one holds about 10 mL of fluid) in the top of the mold.
- Now, degas the Flex 80 material (is what I used) and mix it then fill the syringe. It will take 5 fills to get it all in but there is enough time to do it slowly so as not to push it out the sides.

Instructions courtesy of Bill Colford
http://www.honda600owners.com/