

Getting started Casting your own blanks for less than \$100.

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I would like to first say Thanks to IAP and all the members that continue to help me learn every day! I hope this tutorial can help give back at least a little bit.

A quick disclaimer: This tutorial suggests the purchase and use of hazardous chemicals. Before you ever mess with any of these chemicals, make sure you have all the proper safety equipment. Fire extinguisher, ventilation, fume extraction, protective apparel, etc. The fumes are harmful and the materials are flammable. This tutorial was written for those that own safety gear. If you don't own the proper gear, your expenses will be much higher to set up in casting.

Ok, Now to the good stuff.

This tutorial is going to explain what materials you will need, where to get them and what to do with them once you have them. The \$100 is just the initial investment, and is only a rough estimate. You may spend a bit over 100, or you may have extra cash for more mica colors, but much like buying a lathe, you WILL spend more money on casting. With this plan, the idea is to sell pens with homebrew blanks, and if you like it, use that cash to expand your casting arsenal!

All of the prices listed in this tutorial are as accurate as I can find at the time the tutorial was written. First, we will start with a bare bones list of supplies:



- Resin
- Pigment
- casting molds
- stirrers
- cups

Resin: For this, I suggest you start with Polyester Resin. US Composites sells a product called SILMAR 41 that is PERFECT. It is right at \$50 a gallon delivered to Oklahoma from Florida. Shipping is expensive because it is hazmat and cannot fly. You may be able to save a dollar or two if you can find it from a local distributor or it may cost a little more for shipping if you live way out west or up north or something. (The container in the photo is my own container. That is the last of a 5 gallon bucket of resin I purchased. The 5 gallon bucket was too big to move around with just a gallon of resin in it.)

WHAT? Half the budget on just the first product? C'mon Ron, You can't make the budget now.... SURE I CAN!!!
Pigment: Coastal Scents carries a product on their website called Mica. It comes in over 100 colors and mixes very well with Silmar. These pigments can be purchased for right at \$4 per ounce. The colors also mix well with each other, so if you buy the three primary colors, and one metal flake or pearly something, you will have lots of color mixing possibilities!

Casting molds: Originally, I suggested the use of PVC pipe to use as molds. Since then, I have found what I believe to be a much better solution. It will require one tube of "Acetic cure" silicone per mold and some things that can be found around the house, or made. You can start with one mold for now, and make more as the finances arise. There will be a tag-a-long tutorial on how to make this mold.
([Click here for the Horizontal round mold tutorial](#))

Stirrers: a box of "Craft Sticks" is perfect for this job. You can get a small box of them for a couple dollars.

Cups: Get a "silicone muffin pan". The soft, pliable muffin pan your wife has probably tried and discarded because it is "weird for baking muffins in". Cut the cups apart from each other. Now you have 6 reusable mixing cups that double as pendant blank molds. Mix the resin, let the excess dry in the mixing cup, and it will flake right out. Leave a half ounce or so of resin in the cup to cure to make a pendant blank, OR Layer it with different colors for a cool double sided pendant blank!

So, let's figure up our budget and see how we are doing so far!

- resin delivered: \$50
- pigment: (4 colors and shipping) \$20
- silicone: \$10
- stirrers locally: \$5
- muffin pan locally: \$10

GRAND TOTAL: \$95

There are some things that will help you if you can find them for free, or budget them in. A cheapo toaster oven that you can dedicate to casting is a big benefit. If you get one, MAKE SURE it has a setting for 150 degrees. This temp is pretty critical from what I understand (I have not tested the heat limits of PR casting and don't plan on doing so any time soon) A pressure pot is helpful, but not a must. You can cast amazing blanks without it.



More colors, and other pigments will also be a thought later in the game, and soon after getting started, you will look at things and think to yourself "I wonder what would happen if I cast that in resin", so new molds will be in order.

NOW, to put all this fun new stuff to work!!!

First, understand that there are many different ways to make blanks. This is going to be the most un-scientific way imaginable!

First, make your mold, so it can be curing while you are setting up and getting your area ready to go. ([Click here for the Horizontal round mold tutorial](#))

Pour resin in the muffin cups (after you do your math of how much resin you need for the pour). Add a pinky nail sized amount of mica on the end of a craft stick in the resin and SLOWLY mix. The idea is to mix in the mica and dissolve all of it without introducing air.

Add the MEKP and mix again. (Mekp is the Catalyst for the resin. It is the active ingredient that you add to make it do its thing. If you order Silmar from US Composites, the MEKP comes with the resin. If you get your resin from a different source, you may have to buy the MEKP separate.)



Pour resin in the mold and let sit for 24 hours. That's it. You just made your first pen blank.

If you are using a toaster oven, the wait time is much shorter. After you pour the blanks in the molds, wait an hour and a half or so and then put the blanks, mold and all, in the oven at 150 for another hour. Remove and let cool. Another benefit to a toaster oven is that you can preheat the resin for about 3 to 5 minutes to make it less viscous, and therefore more willing to let go of the air bubbles.

**side note* --- If you wait a couple of minutes before you pour the resin in the molds, your multi color pours will have stronger color separation. If you pour immediately after mixing the MEKP, the separation will be much softer. This technique will not give you the absolute best blanks in the entire galaxy. This technique will not save you any money in the long run. Consider you will get (I am told, I have never kept track) 50 to 60 blanks out of your one gallon pour, so that is about \$2 per blank, COST. This technique will however get you making some beautiful blanks that your customers/ friends/ family will freak out over and introduce you to the next step in the never ending search for the perfect pen!

I did not take any photos of me actually casting for a reason. This tutorial is to simply give you a starting point. The rest is up to you!

Once you get used to making blanks:



*bottom right: 33- 9/16 diameter round blanks
top right: 21- 3/4 diameter round blank
bottom left: 9 wine stopper blanks
top left: about 40 or 50 pendant blanks
background: wood.*

You will want to start experimenting!!!



*left to right: bleached cactus cast in clear resin
red and black dyed cactus cast in clear resin
"airsoft" bullets cast in green resin
candy cast in clear resin
woodchips cast in clear
and finally, worthless wood cast with a silvery Alumilite.*

As you can see, the imagination is the only limit!

Now, why are you still here? Go raid the kitchen for a silicone muffin pan!!!