

Making Fake Wax 78 RPM Records

By Jim Scott - August 2015

78 rpm records were made of various shellac-based materials, and were quite breakable, unlike the vinyl 45 and 33 ½ rpm records that eventually replaced them. The standard diameter for a 78 was 10", although 12" records were also available.

Noël Coward's play *Private Lives* calls for Amanda to break a "gramophone record" over Elyot's head in Act II. Given that the play was written in, and presumably set in, 1930, this was clearly a 78 rpm record.

In CAT (Chamberlayne Actors) Theatre's production of *Private Lives* in the fall of 2015, we used a wax record for this scene. We decided against using an actual 78 for two reasons: It would require too much of a blow to the actor's head, and shards might go flying.

To make a wax record, you first need a mold, which will probably be a tray or platter of some kind, with a rim around the outside. The inside surface must be *absolutely flat!* I used a blue plastic platter, shown in the photo on the right. The mold for a 10" record should have an inside diameter of about 12", large enough to allow the part outside the 10" record to be trimmed away. The material of the mold must be able to withstand melted wax, but that's not saying much.



Briefly stated, you melt a quantity of black wax and pour it into the mold. When it cools, the excess outside the 10" diameter is trimmed away, leaving a 10" wax disk.



Here are the materials you'll need:

- The mold, as described above; note that the mold will be slightly marred later in the process by an X-Acto knife. So don't borrow it and plan to return it.
- A supply of black wax; I used 12 oz. packets of Country Lane Candle Supplies black granulated wax, \$3.99 each. (One packet makes about two untrimmed wax disks; so in the long run, a packet should make about three finished records, or more if you reuse scraps from records broken on stage.)
- A pot for heating water
- A smaller pot to contain the wax as it melts; I made one from an empty can, with vise-grip pliers as a handle. Bend the rim a little bit to form a spout.
- A short bit of dowel, ¼ inch in diameter, ½ to one inch long, cut cleanly on one end so it will stand by itself



- A spirit level
- Paper towels and/or rags
- A spray can of original Pam
- A real 78 rpm record - or a substitute, perhaps a wooden disk, with the hole in the *exact* center
- An X-Acto knife
- Another, larger knife, perhaps a pocket knife with a dull blade
- Double-sided tape
- Two printed record labels (see below)

And now, let's get started!



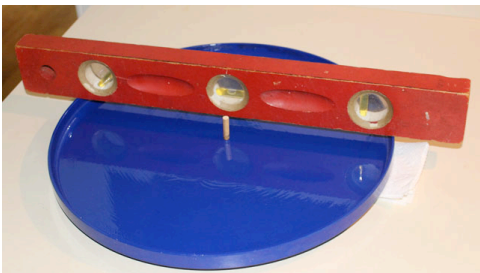
Put a couple of inches of water into the water pot and place it on a stovetop burner. Put wax granules or pieces into the can, and put the can into the pot. (In the illustration, instead of wax granules, the can contains wax pieces left over from a previous session.) Turn the heat to high initially, and then turn it to medium-low when the water is almost hot enough to boil. Assuming a 12-inch mold, you should aim for about one cup (fluid volume

measurement) of melted wax. The more you use, the thicker the disk will be. (Remember that some of the wax will be trimmed away from the 10-inch disk, and can be reused in a future batch.) It takes about 20-25 minutes for a cup of wax to melt completely. If you're using granules, the unmelted granules will float; when they disappear, melting is complete. But if you're starting with larger pieces of wax, the unmelted pieces will sink, making it difficult to tell when melting is complete. So start with just a few pieces, and add more only when the previous pieces have melted.

While the wax is melting, prepare the mold. Spray the surface of the mold with Pam. Use a wadded-up paper towel with circular motions to smooth out the Pam coating.



Place the short dowel near the center of the mold, standing on end (vertical). The location does not have to be precise. The purpose is to make the hole in the center of the record.



Use the spirit level to make sure the mold is as close to level as you can get it. If necessary, use folded paper towels as shim. Check the level from front to back and from side to side. Any departure from true level will result in a disk that is thicker on one edge than on the other.

Now the mold is ready. Remember to turn down the heat somewhat when the water looks like it's close to boiling.

Before you pour, you need to be sure that all the wax has melted. When you're ready to pour, use the pliers handle to lift the can from the water. Use a rag to remove dripping water from the bottom of the can. But be careful not to burn yourself; you *really* want to avoid dropping a load of melted wax.

Pour quickly, in one motion, moving the can's spout around the mold to facilitate even distribution. If you stop pouring and then restart, the wax could harden into sections with a fragile seam between them.

Let the wax disk cool completely before going on to the next step.



Place the real 78 over the wax disk, with the short dowel sticking up through the hole in the 78. Use the X-Acto knife to cut straight down all around the rim of the 78. (Unavoidably, this is where the mold gets scratched.)

Leaving the 78 in place, use the X-Acto knife and the larger knife to remove the

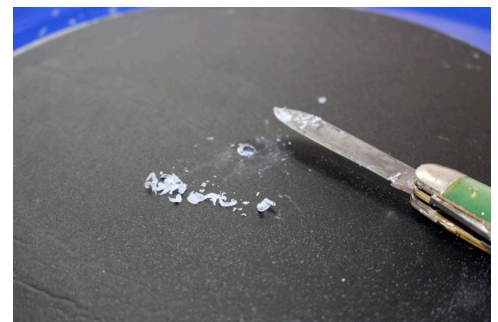
excess wax outside the 10-inch diameter. As each piece comes up, wipe the underside of the piece with a paper towel to remove as much of the Pam as possible; these pieces will be remelted in the future, and you should minimize the introduction of substances other than the wax itself.



Once all the scrap has been removed, it's time to separate the wax disk from the mold. *This is the point at which you need to be most cautious.* Still leaving the 78 in place on top of the disk, insert the tip of the larger knife a couple of millimeters under the rim of the disk, and twist just a little.

Repeat this at various points around the circumference. Eventually the disk should become unstuck from the mold.

Twist the short dowel to remove it. Then remove the real 78. There will be a bit of a wax protrusion around the hole where the dowel was. Use the large knife as a scraper to flatten this out.



Use a cloth rag to polish the top (less shiny) surface of the wax disk a bit. At least do it near the hole, because otherwise the tape for the label won't stick.

Carefully lift the wax disk and place it upside down on a *flat* surface (not on the mold, but maybe on the 78). Use a paper towel to wipe off as much Pam as possible. Also clean off the mold itself when you have a chance.

If at any point there is a minor crack or break in the wax disk, it can be repaired nicely with shiny black plastic electrical tape.

Print two copies of the record label (example shown at right). It should be three inches in diameter. For best results, print it on glossy photo paper. Cut off the excess, and use the X-Acto knife to cut out the hole.

Apply double-sided tape to the bottom surface of the label, then stick a label to each side of the wax disk, being sure to line up the holes.



This completes the wax record! Store it carefully on a flat, rigid surface. You can put paper towels between stacked records, but make sure the towels are not wrinkled or folded. Don't leave them in a hot car!

Ask your stage crew to save the big pieces of wax and the labels from each performance. They can be reused to make more records for future performances.