How to Polish Acrylic
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We sell some plastic eyeballs and some plastic hemispheres that need to be rounded and polished. Here are the steps.

Work the area that needs removal, nothing else

First, use a sander or a file to get "very close" to the shape that you want. Do not overwork it.

Next, buy "wet or dry" sand paper from your hardware store. Get a sheet of 30 or 40 grit, a sheet of 60 grit, a sheet of 120 grit, a sheet of 220 grit, a sheet of 400 grit and two sheets of the finest you can get.

Important theory, please read and understand this before moving on.

Every grit sands down the plastic to its own "shine" but nothing more. You will never get a glass smooth polish with a 40 grit sandpaper. Therefore it is important to sand out any groves before advancing to the next finer sandpaper. ALSO, it is very important that your sandpaper is not contaminated with a coarser grit. For example you don't want a piece of 40 grit stuck to your 400 grit sandpaper. The best way to control this is to use tap water to wash off your project and your sandpaper before you go to work.

Obviously start with coarse grit and work your way down to the finest grit. You need to keep sanding when you see a "scratch" in your work.

After you do all your sanding and you are down to your finest sandpaper it is time to buff to a shine. Do this with a buffing wheel, at slow speed and WITH buffing compound. Do not use water. Don't overdo it or you will heat-melt the plastic and ruin your project.

Practice makes perfect, not over-working!