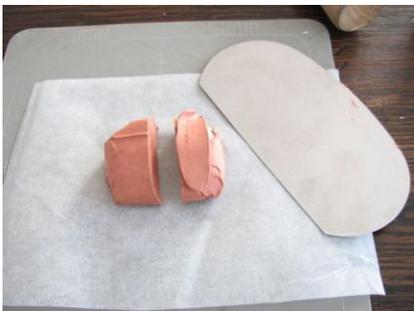


COPPER AND SILVER RING



YOU'LL NEED: 20-25gms of Art Clay Copper, 1 x 5gm syringe with a blue nozzle (I used $\frac{1}{2}$ of this), ring mandrel, ring sizer, moisture pen or paint brush, spatula R007, craft knife or blade, roller, plastic strips 1.00mm and 1.5mm, sponge sandpaper (super fine, ultra fine and micro fine), baking paper and gladwrap.

PLEASE NOTE: THIS PROJECT IS ONLY SUITABLE TO KILN FIRE



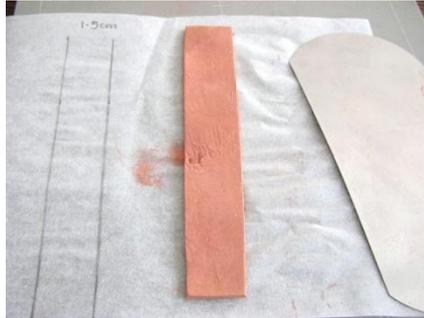
STEP ONE: Divide your 50gm block of Art Clay Copper on half, so you are only working with 25gms of clay.



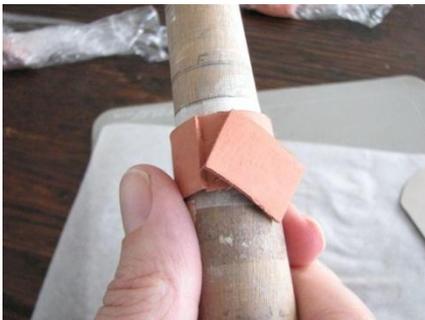
STEP TWO: Wrap 25gms in gladwrap tightly so no air can get at it and set aside for another project. Wrap the other 25gms in a double layer of gladwrap and condition until soft.



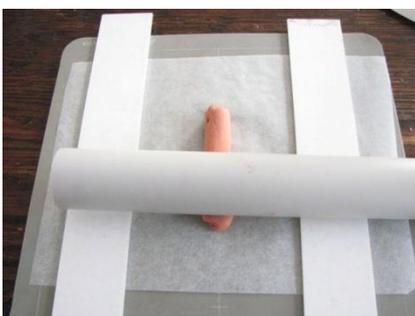
STEP THREE: Mark the ring mandrel with your ring size PLUS 4-5 sizes (Japanese). This allows for 10% shrinkage with Art Clay Copper. Wrap baking paper around the mandrel and secure with tape. Then mark the line again on the baking paper with pencil so you can see it clearly.



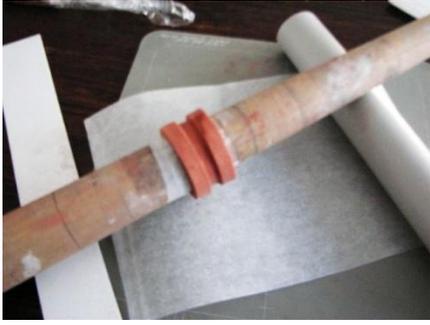
STEP FOUR: Roll out the clay using the clear 1.00mm plastic strips. Trim the clay so it is 15mm wide and it is long enough to go around the mandrel where you have marked it. Slightly dampen the strip with water.



STEP FIVE: With the dampened side down, wrap the clay around the mandrel so the pencil mark is in the middle of the clay and trim any overlap. Secure the join by blending it with the back of your fingernail - you may need a little water to smooth it.



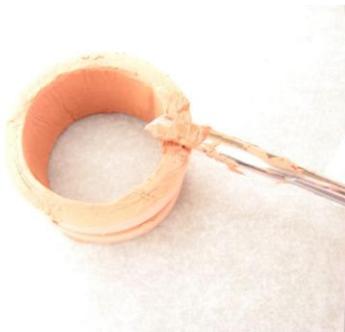
STEP SIX: Roll out the remainder of the clay and cut two strips that are 5mm wide.



STEP SEVEN: Moisten the ring on the mandrel with a little water and then wrap the strips around the ring on the outside edges, so you have a channel of approx 5mm in the middle. * see note at the end of this project sheet for an alternative to this method. Press down gently all the way around the strips to help secure them. Dry. Gently slide the ring off the mandrel and dry again to make sure the ring is completely dry on the inside.



STEP EIGHT: Use the spatula to make a little paste by adding a small amount of water to some left over clay. The paste should be the consistency of toothpaste.



STEP NINE: Use the paste to fill any gaps around the edges of the ring and any seams that are showing. Dry.



STEP TEN: Sand the ring on the outside, inside and around the edges. Use all three grades of sandpaper. Make sure there are no seams showing at all - otherwise these will open up during firing. If you see a gap, fill it with paste, dry and then sand again until there are no gaps.



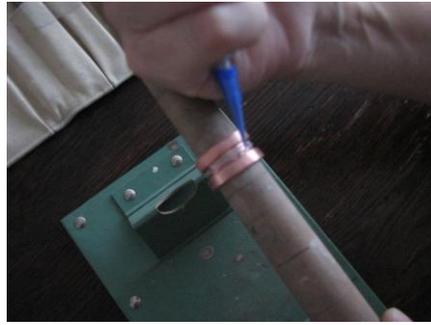
STEP ELEVEN: Fire the ring at 970oC for 30 minutes in a kiln. During this time prepare a bowl of cool water nearby.



STEP TWELVE: Once the 30 minutes has passed, immediately place the ring and fibreboard down on a heat proof surface, pick up the ring with your tongs and quench in the water. Oxidisation will come off in the water.



STEP THIRTEEN: Using a pickling solution, place the ring in the hot pickle - do not use a metal tool - either copper, wood or plastic. Leave in the solution until the rest of the oxidisation has come off. This should take anywhere from 5 - 25 minutes depending on what kind of pickle you use. Rinse the ring with water to clean and then dry.



STEP FOURTEEN: Place the ring back on the mandrel and prepare your syringe with the blue tip. Extrude around and around until you have reached a height that is level with the copper.



STEP FIFTEEN: Pat down any raised areas with a moisture pen or paint brush and add more syringing if necessary to ensure it is even all the way around. Dry. Fire in a kiln for 30 minutes at 650oC.



STEP SIXTEEN: Pickle once again to remove any oxidisation (it should be light this time), rinse with water, dry and then brush with a stainless steel brush to bring up the shine.

It's a good idea to coat the ring with a clear lacquer to stop oxidisation forming on the copper or your skin going green/black from where the copper rests on it.

*Another option for making a ring with a 5mm strip/gap in the middle would be to roll out the clay 2.5mm thick with a 1.5mm thick strip of cardboard in the centre to create the 5mm wide gap in the centre. Then cut the whole strip to a width of 15mm wide and suitable length for your ring size.