

Neon Ring

This project by Clare John uses a ready-made ring as a pattern for casting a solid resin version in vibrant neon colours.



Clare says: *“The 1960s was a time of radical change in fashion and jewellery design. New materials were being developed and bright jazzy colours were used. Mary Quant introduced the mini skirt and Courreges pioneered the space age look in fashion. Jewellery was chunky and big pieces were made from block coloured plastic. It was a time for throwing out the concept of expensive jewellery in precious materials and bringing in ‘groovy’ new styles.*”

This Neon Ring is designed to show the spirit of the 1960s with its bold use of colour and modern plastics. It is made by using a ready-made ring as a master, making a silicone mould and casting neon coloured resin in layers to create stripes.”

MATERIALS AND TOOLS

- ✓ Plastic master ring – with a flat side that can be attached to the base
- ✓ Mould box (e.g. shampoo bottle)
- ✓ Plastiline® - a sulphur-free Plasticene®
- ✓ CHEMSET® Fleximould compound
- ✓ CHEMSET® Resin and Hardener
- ✓ CHEMSET® Fluorescent Pink and Fluorescent Yellow colour paste
- ✓ CHEMSET® White colour paste
- ✓ Saw
- ✓ Perspex sheet
- ✓ Modelling tool
- ✓ Gaffer tape
- ✓ Rice
- ✓ Marker pen
- ✓ Clear plastic cups
- ✓ Wide blade sticks or palette knife
- ✓ Brush
- ✓ Drinking straw
- ✓ Palette paper or white tile
- ✓ Scales
- ✓ Mixing cups and sticks
- ✓ Wet and dry abrasive paper, 180 grit
- ✓ Buff stick
- ✓ Micro-mesh™ fine polishing cloths

STEP BY STEP INSTRUCTIONS



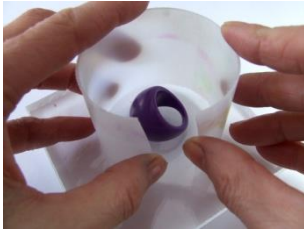
STEP 1

Find a plastic bottle that the ring will fit into with space all around it.



STEP 2

Cut the bottle into three sections – the top (that has the lid section), the middle (which is now a tube) and the bottom (which has a base). The middle and the bottom pieces must be at least twice the height of the master ring. Discard the top part that the lid fits onto.



STEP 3

Cut the section of the bottle that is a tube along its length so that the tube will open.



STEP 4

Put an edging of Plastilene around one side of the ring.



STEP 5

Fix the ring with the Plastilene to the Perspex sheet.



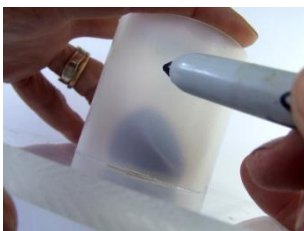
STEP 6

Clean the edge of the Plastilene so that it is a neat edge around the ring.



STEP 7

Wipe the master ring so that there is no Plastilene or other marks on it.



STEP 8

Hold the tube over the ring against the Perspex sheet and mark it at least 15mm above the height of the master ring. This will be the level to which the silicone mould material is poured.



STEP 9

Mark the same level onto the other part of the bottle, which has the base left on it.



STEP 10

Pour some rice into the bottle up to the mark. Transfer the rice to a clear plastic cup. This will give you the volume of silicone that you will need to make the mould. The silicone material comes in 2 equal parts so mark the clear cup half way up and that will give the level for 1 part of the silicone.



STEP 11

Empty the rice out of the cup and brush it out to make sure no dust is left from the rice. Put the cup on the scales, turn on the scales and pour in 1 part of the silicone (in this case it is blue) up to the halfway mark on the cup (a clear cup is used so you can see the level the silicone has reached). Make a note of the weight of the silicone.



STEP 12

Put another cup on the scales and turn them on. Add the second part of the silicone material (white) to the same weight as the blue. Then pour the white into the cup with the blue. Do not pour the white onto the blue when weighing it out because, if you add too much, you will not be able to rectify it by taking any out as it will already be mixing.



STEP 13

Fold the two colours together with a wide bladed stick or palette knife. Do not stir vigorously as this will introduce air into the mix, which is not good. Pour the mix back into the other cup to and mix again to make sure that every bit of silicone is mixed in. The advantage of the two colours is that it is easy to see when the material is properly mixed.



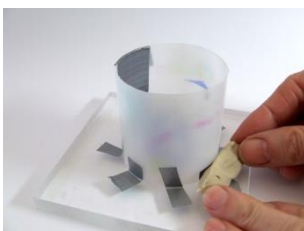
STEP 14

Paint a thin layer of silicone mix onto the master ring with a brush. This will break the surface tension on the ring and make sure it is coated all over.



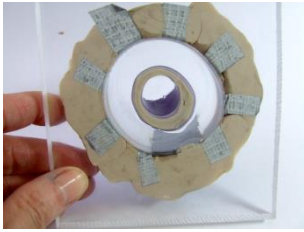
STEP 15

Take a drinking straw and blow gently on any visible bubbles – they will pop and disappear. Do not blow too much as this will blow moisture from the breath onto the silicone and that will inhibit the silicone setting.



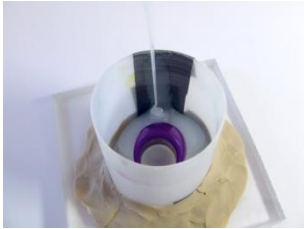
STEP 16

Seal the inside of the open side of the tube with gaffer tape. Fix the tube around the ring with a little gaffer tape to locate it. Then seal very thoroughly with Plastilene all round.



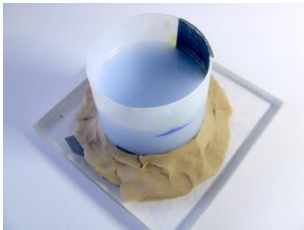
STEP 17

Turn the Perspex over and check that the seal is good. This is essential because the silicone mould material will leak at every opportunity and, once it leaks, it is difficult to re-seal as everything will be slippery with silicone!



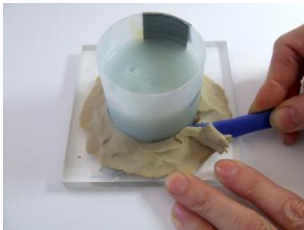
STEP 18

Pour the silicone mix into the mould box. Do not pour it directly onto the master but into the edge around it. This is so the thin layer that was painted on is not disturbed and to avoid air bubbles. Try to pour a thin steady stream from as high as possible, the thinner the stream the fewer bubbles will be in the mould.



STEP 19

Fill the mould box to the marked line. Once the master is covered you cannot see how deep the mould needs to be so that is why you have the pen line. Leave the silicone to cure for 24 hours in a warm place.



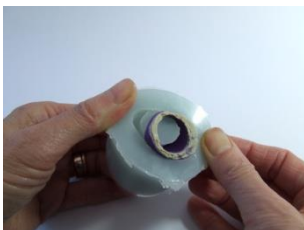
STEP 20

Remove the Plastilene seal.



STEP 21

Peel away the mould box. It will lift off the Perspex very easily.



STEP 22

Gently lift out the master from the mould. Leave the mould to post cure for 3 hours in a warm place.



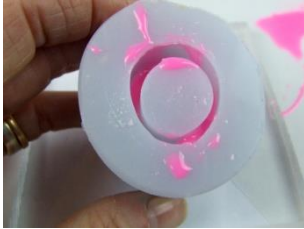
STEP 23

Mix some fluorescent pink colour paste with a speck of white colour paste on palette paper or a white tile. Make up a mix of 4gm resin and 2gm hardener. Add a small amount of colour paste into the resin mix using a palette knife to make sure it is all thoroughly mixed with no streaks. Leave the resin to sit so any air bubbles can escape.



STEP 24

Warm the mould and put some of the resin mix into the mould. Do not put too much resin in as this is the first stripe. The aim is to fill it a third full.



STEP 25

Tilt the mould so that the resin flows around it evenly. Put a drop of resin mix at the side of the mould so that curing rate can be tested.



STEP 26

Wrap a bit of kitchen paper on a cocktail stick and wipe any drips of colour off the walls of the mould.



STEP 27

Put the mould on a Perspex sheet. Tilt the mould and put a wedge under it so that the resin will cure at an angle. Leave the mould in a warm, dust-free place for at least 6 hours.



STEP 28

Reserve some of the colour paste mix in a pot to use for the third resin stripe.



STEP 29

Make a mix of fluorescent yellow colour paste and a speck of white colour paste. Weigh out 4gm resin and 2gm hardener. As before, mix a small amount of colour paste with the resin mix on palette paper or a white tile. Blend completely. Leave to sit for 10 minutes or so for the bubbles to escape.



STEP 30

Warm the mould and put some resin mix into the mould, tilting as before to spread the resin. Clean the sides of the mould as before.



STEP 31

Leave the resin to cure tilted on sticks or a wedge but not at the same angle as for the pink layer. Put a drop of resin as a tester on the side of the mould. Let it cure in a warm, dust-free place for at least 6 hours.



STEP 32

Make another mix of 4gm resin and 2gm hardener. Add some of the reserved pink colour paste to the resin mix. Again, leave resin to sit for 10 minutes.



STEP 33

Fill the warm mould to the top with the third layer of resin mix. Do not forget to put a tester drop on the side of the mould. Leave to cure for at least 6 hours.



STEP 34

Test the sample drop of resin to make sure it is really hard. Peel apart the mould and gently remove the cast ring.



STEP 35

Clean up the edge of the ring using a buff stick with wet and dry abrasive paper. Use it wet and wear a mask to avoid breathing resin dust. The resin is quite easy to rub down.



STEP 36

Clean and polish the ring with micromesh polishing cloths. It is worth taking time to go through from coarse to very fine grades of cloth. The ring could be polished on a buffing machine but, as the resin is fairly soft and the ring has a complex shape, it is easier to polish by hand. It can also be brought to a soft shine using an abrasive paste such as T Cut.

DESIGNER TIPS

- Always use separate tools for resin and silicone work otherwise you will find the ingredients of one will affect the other and alter the curing of both.
- Warm the mould before filling and the resin will flow more easily.
- Allow resin mix to sit for ten minutes before using so that air bubbles can escape.
- Drill holes in the ring and fill them with a different colour resin to make a dotty ring!