

# mould-maker

## description

Resin8's Mould-Maker is the perfect silicone for beginners. It's easy to see when it's mixed, creates a beautifully shiny interior and a faithful reproduction of your original piece.

Resin8 Mould-Maker is an addition cure RTV silicone rubber for making accurate 3-dimensional moulds. It vulcanises at room temperature, produces a flexible mould that is long-lasting and does not need a release agent when de-moulding. Mould-Maker has a high chemical resistance to components of epoxy resin and has a remarkable resistance to high temperatures and ageing.

## instructions

First secure your original onto a flat surface - this could be acrylic sheet or old CD case. You can secure it with sulphur free plasticene or glue (Araldite or Superglue work well).

Make a wall around your object, which isn't too far from your original otherwise you will use too much silicone. Ensure the wall is sealed so that the silicone doesn't leak out - this is your mould box. Then mark a line about 5 or 6mm above the original. This is the level where you will pour the mould-maker to.

For an easy way to work out the volume of silicone you will need some rice - pour it into the mould box and then tip it into a clear plastic cup. Mark the level that the rice reaches in the cup and then pour the rice out. This will give you the total volume that you need to make the mould. (The reason why you use rice rather than water is that you do not need to dry out the original and the mould box when you use rice. Water and silicone should not be mixed). You can spray the original with release agent (such as a silicone-free beeswax furniture spray) but it is not usually necessary.

Mix equal parts, by weight (e.g. 100g and 100g), of Mould-Maker BASE and Mould-Maker CATALYST - one part blue and one part white. Put the marked empty clear plastic cup on a set of digital scales and set the scales to zero (tare). Pour the Mould-Maker BASE up to halfway to the mark on your plastic cup. Make a note of the weight of the Mould-Maker BASE. Take cup off scales.

Put an empty plastic cup on the scales and weigh out the same weight of Mould-Maker CATALYST into the cup.

You should now have a cup with blue Mould-Maker BASE in it and another with white Mould-Maker CATALYST in. (Using two cups makes it is easy to get the correct weight of each part - if you put too much in, you can take a bit out without contaminating any of it).

Pour one cup's contents into the other and mix for 30 seconds. Then pour the mixture into the other cup to gather up any silicone left behind. Mix for another 30 seconds. The mixture should be uniformly paler blue now. Let it stand for a few minutes to get rid of some of the air bubbles (ideally it should go in a vacuum chamber but they are expensive). You have a working time of 14-20 minutes (if your workspace/room temperature is around 23°C). The working time is shortened if the room temperature is higher.

The next step is to coat the original with a thin layer of silicone mixture. You can do this either with a paintbrush or by pouring some in on top of the original and then tipping it out again, leaving a thin layer on top of the original. This is to ensure that there are no air bubbles next to the original, which will give you lumps on your casting. You can use a straw to blow on bubbles and pop them.

Then pour the silicone in to the mould box; starting in one corner away from the original - this again is to avoid air bubbles on the original. Pour in a thin high stream (preferably at least 30cm higher than the mould-box), which will get rid of air. Gently tap the box to encourage air bubbles out.

The mould will be hard in approximately 1 hour, however we advise you to leave the mould for 24 hours at room temperature to cure thoroughly. Once cured, the walls can be gently peeled away and the silicone mould lifted off the original and the base.

The data provided in this document is the result of tests and is believed to be accurate. We do not accept any responsibility over the mishandling of these products and our liability is limited strictly to the value of the products we supply.

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# resin<sup>8</sup>

## key benefits

- HIGH TEAR STRENGTH**  
great resistance to wear and tear from de-moulding
- USER-FRIENDLY**  
easy 1:1 mix ratio by weight, coloured to see when mixed
- ACCURATE**  
reproduces very small details and has a high dimensional stability
- ANTI-STICK**  
Releases easily without the need for a release agent



## mixing ratio

by weight - base : catalyst - 1 : 1

shake the bottles before use. mixing is CRITICAL and must be accurate. 1 part base for 1 part catalyst (by weight) will provide a high quality mould once cured. Pour the base into one pot and the catalyst into another. Transfer the mix into another container and stir for at least 1 minute. An entirely homogenous mix is essential in achieving optimal results.

## health & safety

eat, drink and smoke AWAY from your work area  
wear nitrile gloves, or a suitable barrier cream  
eye protection is recommended  
wear a suitable respiratory mask when sanding  
keep hands away from face

if in contact with skin - wash immediately with plenty of water  
if in contact with eyes - rinse immediately  
**seek medical advice**  
if swallowed - do NOT induce vomiting  
**seek medical advice immediately**

## physical & mechanical properties

- + Mixing ratio: 1:1 by weight
- + Viscosity of pre-catalyzed mixture: 4000 +/- 300 cP
- + Density (g/cc): 1.15
- + Mixing time at 23°C (73°F): 1 minute
- + Working time at 23°C (73°F): 14-17 minutes
- + Setting time at 23°C (73°F): 60 minutes
- + Shore A hardness after 24 hours: 21 +/- 2 shA
- + Breaking load: 4.0 +/- 0.2 N/mm<sup>2</sup>
- + Elongation at break: 380 +/- 20%
- + Tear strength: >20 +/- 1 N/mm
- + Reproduction of details: 2 micron
- + Dimensional variation after 24 hours: -0.05%



wear nitrile gloves or a suitable barrier cream



stir thoroughly for 1 minute



pot life is 14-17 minutes



set after 1 hour but leave for 24 hours before de-moulding



shelf life 12 months in sealed containers. keep containers away from heat or cold



avoid bubbles by pouring from a 30cm height in a thin stream



can be brushed onto the original or poured into the mould box