

ONE PIECE FLAT BACK BLOCK MOULD

OVERVIEW

A Flat Back Block Mould is defined simply as a block mould with an open back.



A straightforward process of placing your Master/ Model into a mould box (containment field) and pouring liquid rubber over the Master. Once cured, the rubber is removed, resulting in a one piece mould in the shape of a block.

This is the one of the easiest types of mould to produce and a wonderful introduction to the mould making process.

BEFORE YOU START

The Master/Model. You need to consider what your Master / Model (original piece) is made from. Some materials can cause curing inhibitions with certain silicones. If unsure, check with your supplier. Masters made from porous material (ie plaster, wet clay, cement etc.) will need to be sealed.

Your Master / Model for this type of mould will need to have a wide, open, flat back. This open back will be where you will be pouring your casting compound. Consider if your Master / Model has any deep undercuts. Turn it upside down, imagine you are trying to remove it from your mould. Are there any areas where it will not come out of the mould easily. These are call undercuts. And if your Master / Model has deep undercuts, you may need to think about using a two part mould



The Mould Box. The Mould Box or containment field will hold the liquid silicone while it cures. It will need to be approximately 12mm – 20mm larger than your Master, on all dimensions and “leak” proof. So make sure there are no openings (except the top) or splits. You can use just about anything non porous for your mould box; a plastic cup, leggo blocks, take away container etc

MATERIALS

- A Master (Model) – the piece you wish to make a mould from.
- Mould Rubber (RTV Silicone) – we used Ultrasil
- Non porous clay – we used Klean Klay
- A mould box –a plastic container, leggo blocks etc.
- Sealer (if required)

OTHER BITS

- Non porous, flat work surface eg. gloss tile
- 2 x Mixing containers such as plastic cups.
- Stirring sticks – these should be flat and wide, suitable to your mixing containers. eg. Paddle pop sticks.
- Digital scales – if moulding rubber is measured by weight

SAFETY FIRST

Most materials used in today's hobby moulding and casting are safe if used properly and as directed.

READ ALL TECHNICAL AND SAFETY INFORMATION FOR EACH PRODUCT PRIOR TO USE.

- Keep products out of reach of young children.
- The wearing of rubber gloves and protective clothing is recommended
- Always follow manufactures instructions when using product.

*This Tech Sheet brought to you by
ACCESS RESOURCE GROUP trading as*

www.armsmodelit.com.au
Ph: (07) 3284 1111 Fax: (07) 3284 9976

The information contained herewith is for information purposes only and should be used as a guide only. The author and publisher does not claim that the methods shown are the only way to achieve these results. We advise the reading and strict adhesion of Manufacturers Instructions with regard to specific product. The publisher accepts no responsibility to individuals, organizations, companies etc. for the results of applying this information. The publisher accepts no responsibility or liability for product use or misuse. Recommendations for use do not constitute a warranty, either expressed or implied, of the fitness or suitability of the product for a particular purpose. No warranty is expressed or implied regarding the accuracy of results to be obtained from the use of product. Each User should conduct his/her own tests to determine suitability of the materials for its particular purpose.

ONE PIECE FLAT BACK BLOCK MOULD

Prepare Your Master.

Seal your Master / Model if required. Glue or embed in clay to the base of your mould box (containment field). Ensure that it is secure and that all edges are sealed. You don't want the rubber seeping under the base of your Master.



Build Your Mould Box

Assemble your mould box around the Master, allowing approximately 12mm – 20mm around all edges and above the highest point of your Master. This will be the thickness of your mould walls. Your mould walls will need to be this thickness to support the casting compound while it cures. Place on a flat, level surface. If you are using a mould box sitting on a tile or similar, use some non - porous clay (Klean Clay) and seal the bottom edges of the mould box. This will help prevent leakage.



Measure & Mix

Measure your rubber Part A & Part B into separate cups/containers, according to manufacturer's instructions (Ultrasil is a 100:10 mix). For example 250gms of Part A = 25gm Part B. If your silicone is measured by weight, the use of digital scales is recommended. Use a flat-sided stirring instrument, such as a spatula, paddle pop stick or knife. Stir slowly and deliberately ensuring that you scrape the bottom and sides of your mixing container. Use a scooping motion rather than a whipping stir. This will assist in keeping air bubbles to a minimum. Allow to sit for several minutes. You will see the air bubbles rising to the surface. Most moulding rubbers allow approx 20 minutes to mix and pour, so no need to rush the process



Pour the Silicone

Pour the silicone rubber into the corner of your mould box, from a height of around 150mm, in a slow, thin, constant stream. Allow the rubber to rise up and over your Master. Pouring the mould rubber in this manner helps in the dispersion and minimizing of air and air bubbles. Air bubbles will continue to rise to the surface as the rubber cures.

If your master has very fine detail, you can use a disposable brush to brush a first layer of silicone, using the brush ensure silicone gets into all areas. Then continue to pour the silicone as above.



Curing & Demoulding.

Leave the mould to cure. Curing will take between 1 and 24 hours, depending on the moulding material used.

Use the old "cake test" method to check your rubber has cured. Push gently with your finger, if the rubber bounces back and the correct curing time has elapsed (or close to it) it is ready for demoulding.

A spatula or flat sided tool comes in handy here. Gently push the spatula between the rubber and your mould box to "break the vacuum", between the rubber and mould box edges. Then break apart your mould box. Slowly lift the rubber away from the base of your mould box. You may find that the Master will let go of the rubber and remain in the mould. Don't panic. Gently remove your Master from the mould.



This Tech Sheet brought to you by
ACCESS RESOURCE GROUP trading as



www.armsmodelit.com.au
Ph: (07) 3284 1111 Fax: (07) 3284 9976