

Molding Climbing Holds



There are many different ways to make rock climbing hand holds. We are going to show you a very common and efficient method for practically anyone to make their own holds. Start by creating your own holds. We do not recommend making molds off of other people's rocks due to design infringements. Its more rewarding to make your own anyway! The rock on the left was created by Brian Maynes and the one on the right I created myself - proving anyone can truly do this. The holds were carved out of floral foam but you can use anything you want to make your originals including higher density foams, actual rock, clay, or wood with sand glued to it. Whatever you make your holds out of, fasten the holds down to a piece of plastic using hotmelt glue. Then make mold boxes around the holds to contain the silicone rubber. One trick of the trade is to spray the foam originals with Pam cooking spray to aid in the release of the foam from the molds. This will eliminate a lot of the foam transfer to your first couple of cast pieces (will explain this more later in the process).



You can see for the hold on the right we just used a plastic container with the bottom cut off and then flipped upside down. For the hold on the left, we used corrugated plastic and scored through one half of the plastic to enable us to bend the plastic around the hold to keep the mold box nice and tight to eliminate the need for excess rubber in order to make our mold. Ideally, the wall thickness will be 1/4"-3/8" around the outside of the hold. This will be your mold wall thickness. Any wider thickness will result in wasting your silicone rubber.



Seal your mold boxes around the holds using hotmelt glue or modeling clay. Make sure it is a perfectly tight seal to contain the liquid rubber. If there is any gap in the mold box and the bottom, the silicone will leak out creating quite a mess.



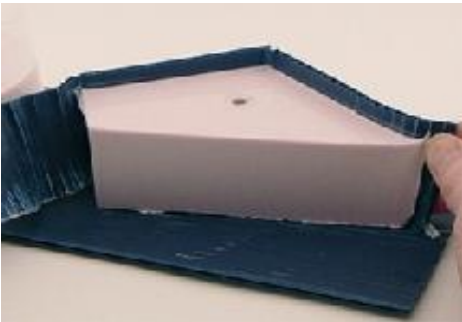
The next step is to mix and pour your silicone rubber in your mold box encapsulating the holds to make your molds. We use Dow Corning's HS III silicone moldmaking rubber to make the molds because of its incredible flexibility and tear strength. With the HS III you are able to make molds of rock climbing holds with severe undercuts and negative drafts and simply flex the mold to remove your holds. The rubber is extremely tough and works perfectly for making many holds out of each mold.



We have made two different types of rock climbing hold molds here. On the left we have placed a bolt in the hold to give us a bolt hole in the finished mold. After the mold has cured, we will mold release the bolt and put it back into the mold and cast the hold. The bolt will act as the center stem which will replace what would normally be a silicone stem that makes the mold able to yield more parts. The mold on the right is a conventional style mold that most people use. It will have a silicone stem creating the bolt hole in the finished hold. The stem is usually the first part to fail in the mold and therefore by using a bolt in place of the stem, the mold will last longer if you are looking for the largest yield of parts out of your molds.



Once the silicone cures (overnight), remove the bolt from the cured silicone mold.



The next step is to remove your mold boxes.



A putty knife will help you remove the hotmelt glue and also help you get underneath the holds to pop them off the mold base.



The last step is to remove the floral foam master. Because the foam is so fragile it will not come out in one piece. So just break out the bigger pieces and rub the mold with your hand to break any smaller pieces of the foam that are stuck in the mold. You now have beautiful rock climbing hand hold molds that will reproduce your exact foam hand hold out of resin. The texture and detail will be exact to your original!