



## Intro: SHOWER CURTAIN -- Silicone and Glass Fiber Mat

This is an outdoor curtain which separates a bathroom area from a patio area. It is made of fiberglass mat material impregnated with clear silicone rubber. The blue plastic tarps I used previously looked cheap, deteriorated from sunlight and had to be replaced every couple of years. The silicone is supposedly guaranteed for 50 years outdoors, so hopefully this curtain will be more economical in the long run. I used about \$35 worth of silicone to make the curtain. A friend gave me the mat material.

The thin, rubbery material also has promise for other uses, such as tarps, or camping equipment. It is tear resistant, and can be patched with more silicone.

Although translucent, I find the curtain visually opaque enough for privacy. Over the years, algae will grow over it, as it does on the walls, which will further increase opacity and make the curtain blend in more with nature. If one wanted to get fancy with designs, one could "paint" on it with colored silicone rubber, but I like it just the way it is.

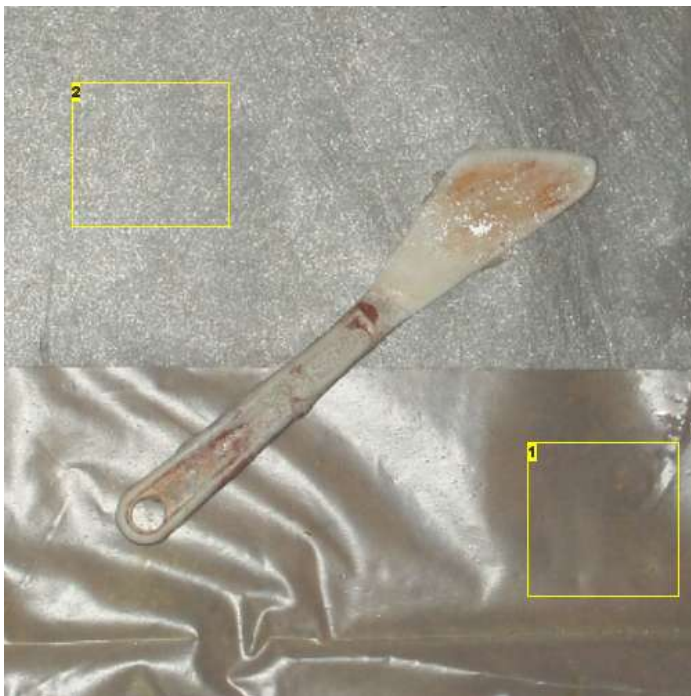


## step 1: Making the Material

The basic idea is that silicone can be forced through the space between the glass fibers to saturate the mat material with silicone. Due to wrinkles in the sheet plastic below and the inability of the relatively inflexible mat material to follow all the wrinkles, some defects are created on the bottom side of the material. To remedy that problem, after the silicone hardens up, it is peeled off the plastic, turned over, and covered with a little more silicone to doctor up the surface.

If I had a factory to make this material, I would probably try to find a rigid and smooth floor surface to work on that the silicone wouldn't stick to. That would avoid the wrinkles and bottom side defects and make saturation a one-step procedure.

It is easy to apply the silicone rubber. Just squeeze some out on the mat material and spread it around with the palette knife. Press down firmly. The final thickness of the saturated material is basically the same as that of the raw material.



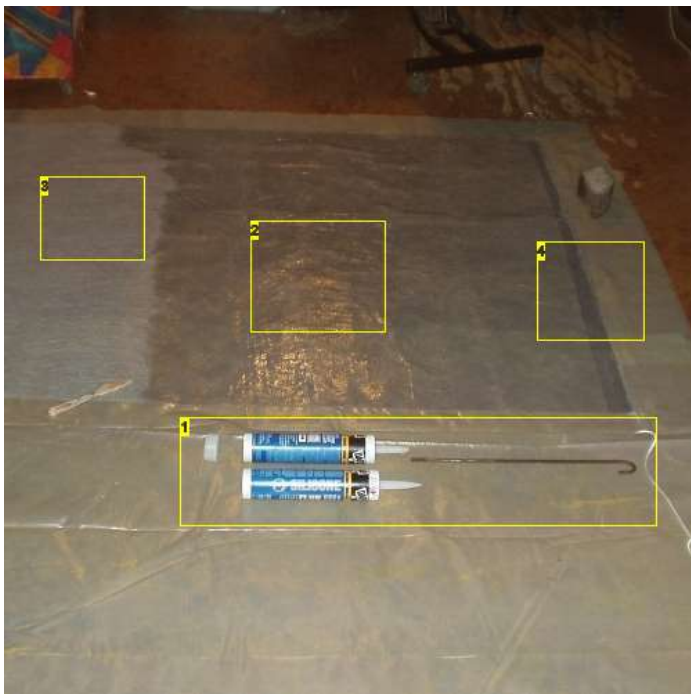
#### Image Notes

1. Sheet plastic laid down on the floor as a non-stick work surface. Silicone doesn't stick well to this plastic, so after it dries it can be peeled up.
2. This is the raw fiberglass mat material. It has porosity, so silicone can be squeegeed through it using a palette knife such as this one shown, or some other spreading tool.



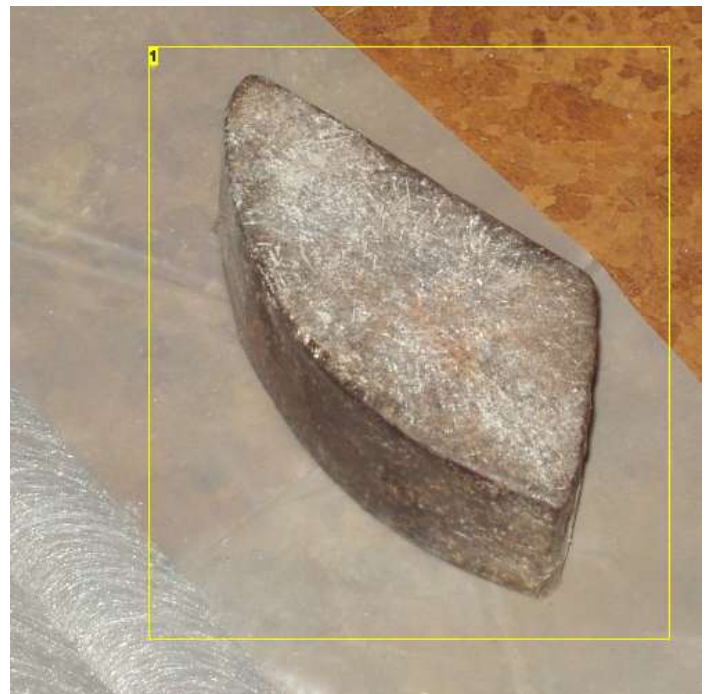
#### Image Notes

1. Overlapping areas can just be stuck together with more silicone. There is no need for sewing.



#### Image Notes

1. After depleting the contents of the silicone cartridge, I use a 1/4 inch rebar push rod through the nozzle to push the plastic plunger inside out the back of the cartridge. I then clean out the cartridge and use it to store artist's acrylic paints.
2. This area has been impregnated with silicone.
3. This area is still raw fiberglass mat.
4. A piece of nylon twine embedded in the folded-over top of the curtain provides a secure place for the curtain rings to grab onto.



#### Image Notes

1. This is a block of iron that I use to weight down the plastic on the floor. As I spread the silicone into the mat, I start at the side near the block. There is some friction while spreading. The pulling force on the plastic material is resisted by the weight of the block.



### step 2: Embedding Nylon Twine at the Top

To embed twine at the top, and thus make a secure lump for the shower curtain rings to grab onto, first pencil the fold line. Next, fold the dry material over to make a crease and help folding later. Lay down a bead of silicone on the fold line, press the twine into the silicone bead, fold it over and squeegee more silicone over the folded material. The silicone can be forced through the double layer of mat material to stick them both together.

Although the material itself is very tear-resistant, the twine reinforces the edge even more.



### step 3: Hanging the Curtain

These are old shower curtain rings that I scavenged many years ago. They are springy clips that open up when the ring is squeezed and then close firmly when released.



#### step 4: Two Ways of Working

You can make a big sheet of the material and then cut it to size with scissors, or you can cut the mat material to size and just saturate the piece you want with silicone. The latter method avoids wasting material to make scraps, but then again scraps are sometimes useful for other projects. Silicone that passes over the edge of the material can be trimmed off later with scissors.



#### step 5: Reusing the Empty Silicone Cartridges

I try to recycle everything I can. Since I am also an artist, I buy my acrylic paints in bulk, in pint jars. Opening and closing the jars all the time allows air into the jars which causes some paint to dry in the jar and get wasted. To avoid wasting paint, I transfer it from the jars into the empty silicone cartridges, replacing the original end plugs and capping the nozzles with silicone rubber caps I form over the tips of unused cartridges.

To access the paint, I put the cartridge into the cartridge gun, uncap the nozzle, and squeeze out the paint I need, recapping the nozzle when finished. There is never any wrestling with caps glued in place by dried paint since the paint doesn't stick well to the silicone rubber caps.

After emptying the cartridge, remove the plug, wait for the silicone to harden up, and then remove it from the cartridge and plug.



##### Image Notes

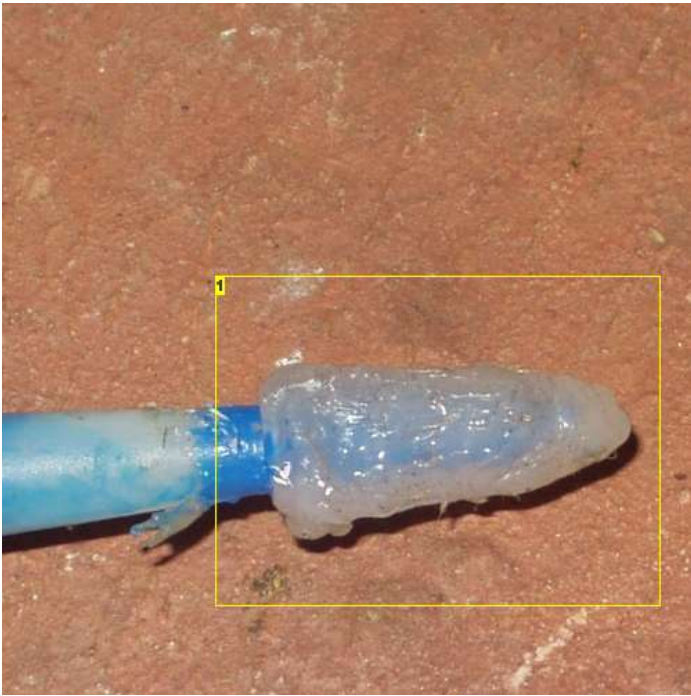
1. These are the paint-filled cartridges hanging up in wire hangers.



##### Image Notes

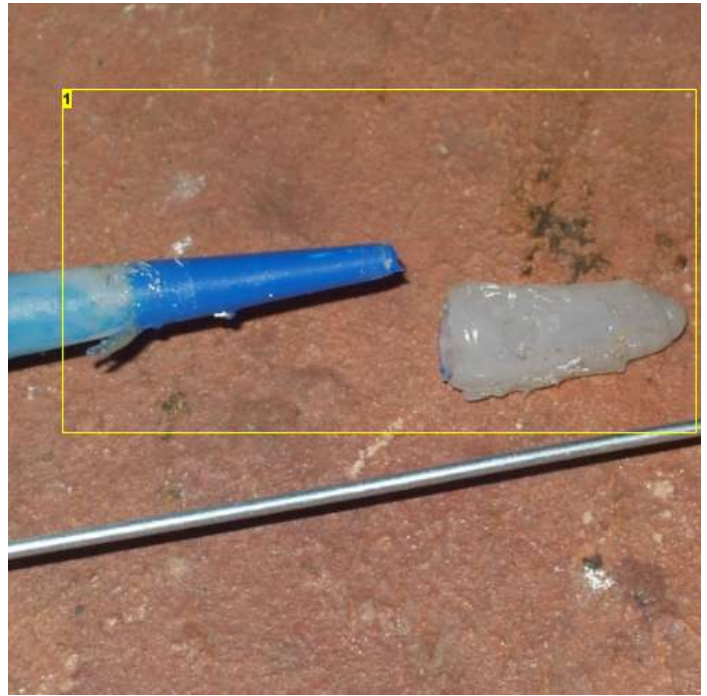
1. This is the simple wire hanger I use to hang up the cartridges. I hang everything I can for storage. For further hanging ideas see:





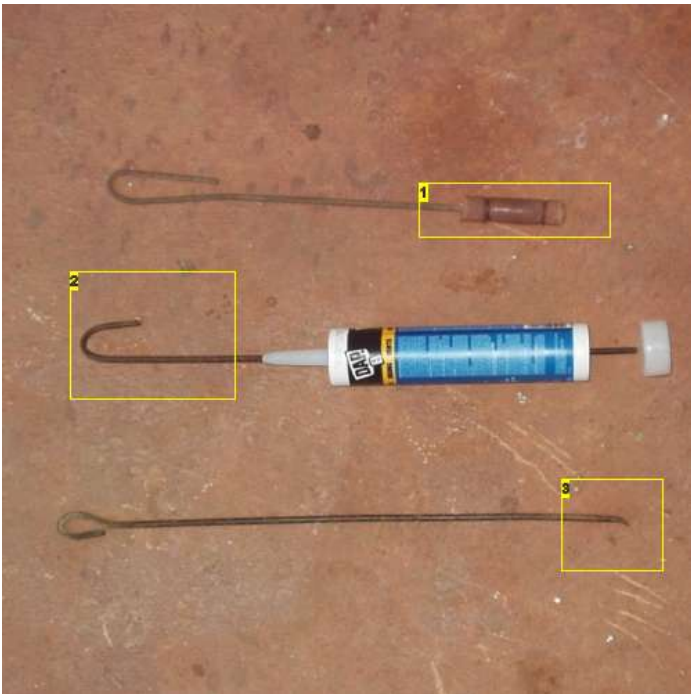
#### Image Notes

1. The silicone rubber cap was made over an unused silicone cartridge. The silicone doesn't stick to the cartridge nozzle plastic and the paint doesn't stick to the dried silicone.



#### Image Notes

1. Just pull the cap off to remove, and push it on to replace. There is never any problem with screw caps glued down with dried paint.



#### Image Notes

1. This is a roll of silicone saturated cloth tied to the tip of a rod. Friction helps me rub the inside of the cartridge clean with this tool.  
2. A straight push rod is used to remove the internal end plug. The plug is replaced after the cartridge is filled with paint.  
3. This tip has a little scraping tool, useful for removing the dried silicone in the deepest areas of the cartridge.



#### Image Notes

1. This is the simple pushing rod used to remove the plug from inside the empty silicone cartridge.

## Related Instructables



**How to Make a Sunken Shower with Heated Tiles** by Senseless



**Remodel a bathroom** by MrBippers



**How To Repair Fiberglass** (video) by tap guy



**Waterproof Speaker For Better Shower Singing** by depotdevoid



**Magnetic Shower Curtian Closure** by DanielCG



**Cozy Low-Energy Shower** by LowEnergy



**Refill Scrubbing Bubbles Automatic Shower Cleaner for \$1.00** by FIXA



**A Computer you can use in the Shower** by bmlbytes

## Comments

5 comments [Add Comment](#)



**lemonie** says:

You use some interesting materials, why glass instead of e.g. cotton?

Oct 19, 2009. 1:09 PM [REPLY](#)

L



**Thinkenstein** says:

I'm hoping that glass will hold up better under ultraviolet rays than cotton would. Also, organics rot if water does reach them. Also, someone gave me the roll of glass mat material, so I had it on hand free.

Oct 19, 2009. 4:26 PM [REPLY](#)



**lemonie** says:

The glass will last longer true, I wouldn't know about the silicone though?

Oct 19, 2009. 11:25 PM [REPLY](#)

L



**Thinkenstein** says:

The silicone cartridge says, "50 yr. durability guarantee".

Oct 20, 2009. 7:26 PM [REPLY](#)



**Zaphod Beeblebrox** says:

yet another great ible! probably will be featured !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

Oct 19, 2009. 5:20 PM [REPLY](#)