

## BRICK TEXTURES MADE WITH FOAM RUBBER

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### WHAT THE PROCESS IS

In years past I used a variety of different materials to form dimensional brick shapes, but wasn't pleased with the results for a variety of reasons. A hard material like wood is difficult to cut to fit, and is also very heavy, although it is very durable. Celotex insulation or Homosote is lighter and easier to cut but a really nasty sawdust comes from that product, especially when cutting hundreds of small shapes. The oily material sometimes used to keep it from rotting is also problematic from a fire-retarding standpoint. Polystyrene foam can also be used, it is lighter in weight, but not any more fun to cut out. From an artistic point of view, those materials often seem too thick to give a "realistic" appearance to the brick which actually sticks out from the wall much less than the half-inch or so that wood, Celotex, or polystyrene does.

Another problem with these rigid materials is that they absolutely will not work on a pliable surface such as a canvas ground cloth.

Over the last few years, I've been experimenting with using foam rubber products to produce a really handsome brick texture, and have used it in several different ways that have all been fairly successful.

I like this method for several reasons:

The foam is very lightweight.

It is easy to cut into custom shapes.

It is flexible.

You can coat it with a sealer such as Jaxsan 600 or Sculpt Or Coat to give it a homogeneous texture.

This technique will work on a variety of surfaces, both rigid and flexible. You can also use it to make and apply non-brick textures of a similar nature.

### MATERIALS

Urethane or latex foam rubber, polyvinyl glue, water based sealer, paint.

### TOOLS

Something to cut the foam rubber into strips, scissors, measuring tape, chalk line, brushes.

### METHOD

This is an amazingly simple process that is easy enough for just about anyone to accomplish. Since I teach at a university, this means even beginning students can help. The hardest part is coming up with the basic strips of foam rubber to cut down into the brick shapes. From there anyone with a pair of scissors and a 4: brush can do the job if properly supervised.

This first description is the basic method I've been working with. Variations will be mentioned later.

You will need some foam rubber strips that can be used to make the basic brick shape. If you are doing a brick wall, the individual bricks will be viewed from the side rather than the top. Most bricks are somewhere in the neighborhood of 2" thick x 4" wide x 8" long. If the bricks will only be seen from the side, you will need a large number of 2" x 8" pieces. Some of the bricks, like those on the corners, will show the end profile of the brick that is 2" x 4". Still other pieces will need to be odd shapes in order to fit around windows, doors, or other architectural elements. On a "real" brick wall, the bricks are held together with mortar that is recessed a bit from the face of the bricks themselves. Sometimes the mortar is almost flush with the face of the brick, and sometimes it is recessed about a 1/4". You need to use a fairly thin material for the bricks. Really thin strips are difficult to cut from a block, and I generally aim for the 1/4" thick bricks, and depend on the sealing process to lessen that amount.

Urethane/latex foam rubber comes in different densities that are referenced by the weight of a block of the material. Fabric stores most often carry foam padding that is about a one-pound weight, meaning that one cubic foot weighs one pound. This density will work, but it is hard to cut because it is so flimsy. If you can find a heavier weight, denser foam, it will be much easier to slice into thin strips. We always seem to be in too much of a hurry on these projects to wait for an order to come in, and the fabric store foam has generally worked adequately, so that is what I've used for most of the projects discussed here.

There is a primer about foam products at <http://www.monmouthrubber.com/info.htm> that reveals probably more than you want to know about urethane foam and other rubber products. It is fairly interesting reading all on its own, and covers some related topics. There are some web sites for manufacturers of foam products that list thin sheets of various shapes that look promising, but I have not personally tried any of these products and cannot speak to their effectiveness. Of course a thin sheet of foam would not require slicing, and that would cut a big chunk of the work out of making the foam bricks.

There are a couple of different ways of getting the thin strips of foam rubber. One way is to use a bandsaw to slice the strips from a larger block of foam. If you purchase foam padding that is 2" thick, then you can get your 1/4" thick by 2" wide strips by simply ripping the foam

through the saw. You must use a bandsaw; a table saw will just suck the foam down inside itself.

Even the bandsaw is a bit problematic. You need to have a very sharp blade with a medium number of TPI (teeth per inch), in the 6 to 10 range. You will need a rip fence attachment to keep the foam block straight as it goes through the saw. If your bandsaw does not have a rip guide, clamp a block of wood to the table and use that instead. The fence will have less drag if you rub a piece of candle wax against it to make it slicker.

You can decrease the tendency of the foam to be drawn down into the saw by putting a piece of tape over the throat plate where the blade passes through the saw table. This helps to support the foam better.

Finally, it is very important to pull the material through the saw rather than to try to push it through like a piece of wood. Wood doesn't compress like the foam does. Pushing on the foam causes it to bunch up and get stuck on the blade. Hold a piece of wood against the side of the foam as you pull it through to hold it in position and to protect your fingers from the blade. At a certain point, the black pad of foam will be too small to go through the saw effectively, and you will have to waste the last little bit of it.

This is not a perfect process. Some of the bricks will show striations from the sawing action, others will have quite large puckers on them. I like the textural quality that this imparts to the finished project, so for me this is a good thing. Some of the bricks will be thicker and some will be thinner, so you can get a more "random" look by careful spacing these out over the surface you are creating. If your brick wall is to be especially ancient and worn down, you might even want to create extra defects in the foam with a pair of scissors.

As an alternative, Bosch makes an industrial foam cutter that is used mainly for upholstery work. It looks sort of like a jigsaw, and has two thin blades that move up and down in opposition to one another. It works in much the same way as an electric carving knife used in the home, which many people use to carve foam for other projects. This tool costs about \$400 and works really well, but you will not have the advantage of a rip fence. Because I like the imperfections that come from making the strips on the bandsaw, there hasn't been much incentive for me to take this route.

In order to place the bricks on a wall, you should lay out some registration lines to keep the bricks straight as you apply them. If the bricks are 2" tall, and you would like to have a half-inch space between them, make a chalk line every 2 ½" on the wall. If you would like some other dimensions, just use the multiples of whatever they are. If the bricks are too big, or the mortar lines too wide, the proportions will seem off. So, even though larger sizes are easier to do, they won't look as good in the finished project.

The fun part of this work is the different patterns you can create around windows, doors, columns, etc. I generally just do this "by eye" without making any markings, because they are so easy to see. The problems always come in where you have a large expanse of bricks that slant up or down slightly. Of course this technique is not really intended for huge blank surfaces, because making all the foam bricks for something like that is fairly labor-intensive. Before starting the flat work, you should lay in all of the fancy work around the doors and windows first.

Use a pair of scissors to cut the strips of foam rubber to the right lengths. Use yellow or white glue and a brush to apply the foam to the surface. Use enough glue to make a good bond between the foam and the wood substrate. The glue bonds well to the wooden surface, and it also works well with the foam because of its porous nature. Lay in a fair-sized patch of glue and press the foam bricks firmly into place. This goes really quickly. If you have a corner to go around, be sure to put the side pieces on first, and then the parts that face the audience. That way, the overlaps will show less. I haven't had much luck in trying to bend the foam around the corner; it seems to work better with two pieces. The sealer will get rid of most of the imperfections.

Laying out straight bricks goes really quickly. You can do just a running bond, or insert some 4" pieces, as would be found on an older structural brick wall. You can also lay in soldier courses across the tops of the wall; whatever is appropriate to the design. Use a pair of scissors to trim off any excess from the corner bricks, and also to ease the edges of any bricks that stick out farther than the rest.

After the glue has set up, use a very liberal coating of [sealer] to seal the foam and soften the edges of the bricks. This is a very important step; the project will not look good if you skimp on the sealer. You will probably need at least two layers to do the job effectively. Without the sealer, the foam will have a porous appearance that will be immediately apparent to the audience. The sealer has another effect that really helps "sell" the look of the process. If you work the sealer down into the mortar lines well so that it fills them up somewhat, they will have a slightly rounded look to them that is much more like a real brick/mortar line. The sealer can be used to add even more texture in the way you use the brush to make it thicker in some spots and thinner in others. You can also apply a final coat of sealer with a roller so that it has a slightly nappy appearance, and then flatten it out with a trowel or float after it is half dry. This will create lots of tiny fissures for glazes to run into. If you apply a fairly thick last coat to just the face of the brick, you can use a comb to give the surface the same appearance as "brushed" brick.

After the sealer has set up, you can point the brick in whatever style you prefer. I like to start out with several different colors mixed from the same couple of base hues. I make these fairly bright, and then tone them down with glazes toward the end. It is usually easiest to paint the mortar after the brick and before the glazes.

I have tried a number of variations on this theme, using different products and substrates just to see what is possible. The first attempt was for *Tale of Two Cities*, for which I used the technique in two different ways. The first involved a number of brick arches that had a mixture of curved and flat surfaces. These were faced with regular and bending plywood. Lots of odd sized bricks were required, so being able to cut them out of foam with a pair of scissors was appealing. Even more importantly, since some of the surfaces were curved. I needed to make the bricks from something that could easily be bent and attached. The foam worked really well for that. We just stuck the foam pieces on

by eye, fitting them in the most appealing way, using the method discussed earlier.

This show also had a ground cover that went on top of a raked platform. In the opening of the show, workmen were transporting a barrel of wine that accidentally broke open and spilled out onto the street where the poor tried to sop it up with rags. This was a fairly important symbolic element for the play and sets the scene for all of the bloodshed to come, when the streets run red for another reason. Although the large barrel had only two gallons of red water in it, we still needed to be able to get rid of it, a drain was installed in a hollowed out place near the bottom of the rake. Most of the fluid went through a sink drain and the rest was dried up by the action of the characters. The floor covering needed to do several things. It had to fit over an irregular curved surface, it had to be removable so that the show could be transported to another theatre, it had to be waterproof, and it had to have a cobblestone texture.

A heavy canvas was used for the substrate, and different thicknesses of foam were used to form the cobblestones. These were cut into a rounded shape with scissors, and then the corners were snipped off to give them a more rounded profile. The cobblestones were secured to the canvas using Spray 77. We thought that this would leave the assembly more pliable than using any other sort of liquid glue. A random pattern was formed using thicker/thinner cobblestones, and numerous layers of Sculpt of Coat were used as a sealer. I was worried that the foam would come off of the canvas during the action of the play, but this was not much of a problem for the short three-week run of the play. Several bad pieces came off right away, but these were repaired, as were several torn pieces of foam. It was great to have such a nice texture on the floor.

Another example of using this same process in a different was in a production of *Suburbia*, where a concrete block was required for the outside of the 7-11 store. Of course these blocks were much larger than bricks, but other than that it all worked much the same way.

Recently, we completed a brick street for a production of *Buses*, a story about Rosa Parks. Again, canvas was used as a substrate for the foam pieces that were glued on. This time I tried something new by using the foam padding that is sold to go under Pergo laminate flooring. It comes in rolls about 1/8" thick, is a green color, and a closed cell foam. I made some wooden patterns that were laid on top of the foam, and then the bricks were marked out with Sharpies. Marking and cutting each brick individually took more time, but it made them all slightly different from one another. This time, I used yellow glue to adhere the foam to the canvas with Jaxsan 600 as a sealant. There were more problems with pieces coming off of this floor, even though the Pergo foam was much thinner than the foam used on the Tale of Two Cities project. The major issue stems from the fact that the Pergo foam is a closed cell product, as opposed to the open cell foam we used the first time. Open cell foam is much more porous and absorbs the glue used to bond it to the canvas. The closed cell foam is waterproof, and as such is more like trying to glue something to Plexiglass. In hindsight, the Spray 77 would have been a better choice as an adhesive, or better still a contact cement of some sort. I think the Pergo foam would be just great when used on a wall where there is less stress placed on it, but would not recommend it for use on a floor.

#### ABOUT THE AUTHOR

*John Holloway is the author of Illustrated Theatre Production Guide, published by Focal Press. He has been the technical director for the University of Kentucky Department of Theatre since 1983, and has also designed over 100 productions for theatre, opera, dance, and television. He is a survivor of three national touring companies, and is president of Local 346 of the International Alliance of Theatrical Stage Employees.*