

Embossed Floral Tray

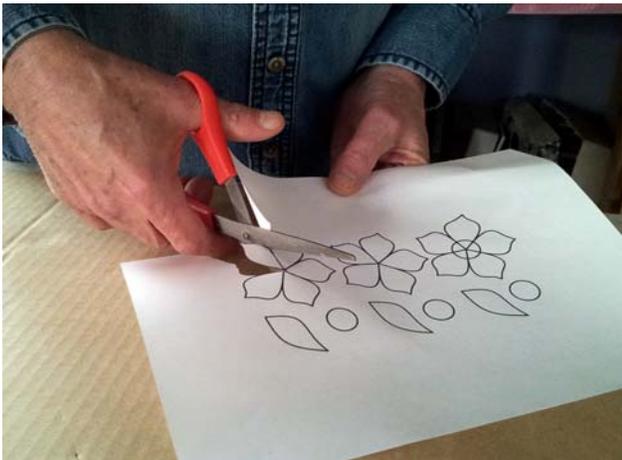
Ceramic Fiber Paper

You can use 1/16", 1/8" or 1/4" thick ceramic fiber paper. For this project, bits of 1/8" thick material left over from other projects was used. Small embossed projects like this are a terrific way to use up scraps of fiber paper. This project uses only a single layer of fiber paper but there's no reason you can't use multiple layers to create more intricate and more detailed embossings.

Draw the Patterns

Draw the pattern for the flower petals, flower centers and leaves on a piece of paper or cardstock. Cut out one of each of the pattern pieces to use as a template cutting guide or more if you wish. Use the template as a guide to draw the shapes on the ceramic fiber paper. You can cut out the pieces as shown in the photo and use them as guides to draw around or, if you prefer, you can cut out the shape as a stencil and use it to draw the shapes.

Patterns for these flowers and leaves can be downloaded from the patterns section of the Glass Campus website.



Cutting out the paper templates



Drawing the pattern onto the fiber paper

Cut Out the Fiber Paper Pieces

With a box cutter or craft knife, cut out each of the pieces needed to complete your designed project. Take care to use a sharp blade to get clean cuts. Pressing firmly but cutting slowly will produce the best results. Working on a piece of cardboard provides a good work surface and allows you to press firmly enough to cut clean through the fiber paper without worrying about damaging the surface below. For this project there was little concern for cutting the shape too accurately. A little random variance looks more natural than having each piece exactly the same. Trim off any rough edges on the fiber paper with scissors.



Cutting out the ceramic fiber paper

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Create texture (optional)

To create interesting extra texture in your embossed project, use a pencil or ballpoint pen to poke dents in the round flower center piece and draw veins in the leaves. Alternate the leaves with half of them facing left and half facing right so your finished design doesn't have them all curved the same way. Press hard enough to be sure to impress a line deep enough that the glass will embed in the grooves you create. If you want to add highly noticeable leaf veins, cut the leaves along the vein lines and set them out with a very small gap between each piece.

Layout

With a soft pencil, trace the mold you plan to use for slumping onto kiln paper or directly onto your kiln shelf. Position the cut out pieces of fiber paper on the kiln paper or kiln shelf to lay out your design. This is a good time to experiment by moving the pieces around to try different design configurations.



Laying out the fiber pieces on kiln paper

If you choose to use kiln paper instead of working directly on your kiln shelf, you will have to spend extra time later brushing off kiln paper

residue from the glass after the emboss fuse firing. Be VERY careful doing this. If you loosen some of the fiber pieces, they may fall out and into the mold when slumping and ruin your project. Kiln paper residue can be easily washed or brushed off but washing or aggressively brushing will disturb the embedded fiber paper.

Transfer to the Kiln

Slide the kiln paper onto a kiln shelf and place the kiln shelf in your kiln. Place two layers of glass on top of the cut-out pieces of ceramic fiber paper. For this project, a layer of 1/8" (3mm) thick clear was placed on top of a 1/8" (3mm) thick layer of transparent light bronze. You can use darker colors but lighter colors show off the embossing better than darker colors. Opal colors will show the embossing only on one side. Iridescent or dichroic glass doesn't work very well for embossing. The metallic coating resists imprinting and will only emboss a small depth.



Fiber paper pieces set out in kiln

Embossed Floral Tray



Glass on top of fiber paper ready to fire

Kiln Firing Emboss (for COE 96 glass)

SEGMENT	RAMP	TEMP	HOLD (min)
1	400F (200C)	1000F (515C)	20
2	150F (65C)	1150F (620C)	15 *
3	900F (500C)	1350F (730C)	20
4	FULL	960F (515C)	30
5	400F (200C)	300F (150C)	0

* this segment is a bubble squeeze included to help extract any air trapped between the layers of glass or between the glass and the kiln shelf.

*for COE 90 glass add 25F to all TEMP
for float glass add 50F to all TEMP*

Prepare to Slump

Brush off any remnants of kiln paper or kiln wash left on the underside of the embossed tray. Be VERY CAREFUL to not disturb the fiber paper embedded in the glass. You don't want some of the pieces to fall out during the slump firing. If some pieces have come loose, glue them back in with Glastac or white glue diluted 50% with water. DO NOT use undiluted glue. It

will often carbonize and leave black smears on the glass. If the glass is slumped without the fiber paper left in, the weight of the glass will press down and remove much of the embossed pattern. Leave all the fiber paper in. Place the embossed glass in the mold and fire to slump. A handy way to get the glass onto the slumping mold without dropping out the fiber paper is to place the mold upside down over the glass and while holding the glass against the mold, flip it over.



Brushing off the residue from shelf paper



Placing slump mold over embossed glass

Embossed Floral Tray



Flipping the mold



Glass on mold ready to load in kiln

After the glass is slumped, the fiber paper pieces can be easily removed. Scrub out any residue with a soft bristle brush.



Finished embossed tray

Embossing with Single Layer

Although using double layers of glass fired to full fuse temperature will give you a much deeper embossing, you can also emboss with just a single layer of glass but if you fire higher than tack fuse temperature you'll get a lot of distortion along the glass edges as it migrates trying to become thicker.

Kiln Firing Slump

SEGMENT	RAMP	TEMP	HOLD (min)
1	400F (200C)	1000F (515C)	20
2	900F (500C)	1350F (730C)	30 *
3	FULL	960F (515C)	30
4	400F (200C)	300F (150C)	0

*for COE 90 glass add 25F to all TEMP
for float glass add 50F to all TEMP*

Embossing and Fusing at Same Time

You can get even more dramatic effects by fusing pieces on top of the glass at the same time you fire to emboss under. A very attractive look can be created by applying multi-colored frit over all parts except where it's embossed.

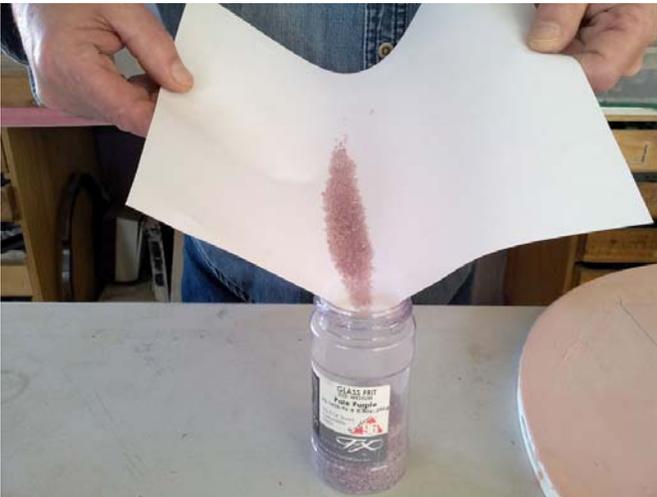
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Coloring with Frit

Sprinkle frit onto the cut out pieces of fiber paper. Brushing the frit off a spoon is an easy way to control how much you distribute. If you work on a piece of paper, you can fold it up after to use as a scoop to return to the frit container any frit that spills off the fiber paper pieces.



Applying frit to flower petals



Pouring excess frit back into bottle



Laying out frit covered leaves

Laying Out the Pattern

Sliding the blade of a box cutter or stencil knife under the fiber paper pieces is an easy way to pick them up and transfer them to the kiln shelf to lay out the pattern. Work in slow motion as you move the pieces around to experiment with different design layouts to avoid spilling the frit off the fiber paper. When you have finished your layout, brush away any bits of frit that jumped off the fiber paper.



Placing frit-covered fiber paper pieces on kiln shelf

Embossed Floral Tray



Finished pattern ready to load in kiln



In kiln ready to fire

Kiln Firing Emboss

Fire to full fuse using the same firing schedule as for an embossing without frit. There will be a rough sandpaper-like texture where the frit tack fused on. This project was done with two layers of 1/8" (3mm) thick clear glass.

If you plan to slump with the emboss texture down, follow the same careful procedure as for the bronze tray project also ensuring the fiber paper pieces are left embedded in the glass.

If you prefer to slump with the embossed texture facing up, carefully brush out all fiber paper residue before firing. The rough sandpaper-like texture from the fused-on frit will slightly soften in the firing.



Brushing off fiber paper residue



Finished embossed tray