Stained Glass Stepping Stones with

DiamondCRETE™ Inc.

www.diamondcrete.net

Supplies needed:

Pens or pencil	Mosaic Mount™
Prepared pattern original	Razor blade or craft knife
Pattern copy on card stock	Mold
Carbon paper	Mold release agent
Scissors	Glue stick (optional)
Glass in selected colors	DiamondCRETE™
Glass marking pens	Mixing buckets
Glass cutter, groziers, & running pliers	Measuring cups – dry and liquid
Safety glasses	Gloves
Grinder (optional)	Rubber mallet
Glass cleaner & paper towels	DiamondSEAL™

Prepare Pattern:

A. Place carbon paper between the original pattern and the pattern copy and use a pen or pencil to 1) number the pieces, 2) note color selection for each piece, 3) mark each pattern piece for 'directional' placement on your glass.

B. Cut out all pattern pieces from the card stock copy by 'removing' the lines of the pattern. This is best accomplished with scissors instead of pattern shears as pattern shears do not leave the require 1/4" space between pieces to allow the DiamondCRETE™ to properly flow around each piece of glass.

Cut & Prepare Glass:

A. Arrange each pattern piece on the selected glass aligning the 'swirl' or pattern in the glass with the marks drawn on each pattern piece in the previous step. Using glass marking pens, trace and number each piece onto the glass leaving enough room to separate each piece before final cutting.

B. Wearing safety glasses, use the glass cutter, groziers, and running pliers to cut out each piece of the pattern. For proper fit, be sure and cut on the inside of the traced lines.

C. As needed, use the grinder to remove especially sharp points or flares. Best results are achieved when the top surface of the glass does not come in contact with the grinder. Remember that any flares or chips below the top surface of the glass will be buried in DiamondCRETE™ and will not be visible.

D. Once your pieces are cut, clean each piece and check it for fit against the original pattern and in relation to the adjacent pieces.

Assemble Project:

A. After cleaning your work area, arrange each piece of glass face up evenly over the original pattern.

B. Using Mosaic Mount™ cut slightly larger than the pattern, apply the sticky side of the Mosaic Mount™ evenly over the top surface of the glass pieces. Gently press each piece of glass to be sure the adhesive film has made contact, remove your pattern from the back of the design, and then firmly re-press the edges of each piece of glass to insure good adhesion.

C. Flip project over. Using a razor blade or craft knife, trim Mosaic Mount™ around the outside borders of the project design.

D. Prepare the mold by spraying the vertical inside surfaces with mold release or applying a thin film of petroleum jelly. Coating the bottom of the mold with a mold release agent is usually unnecessary and prevents the effective use of a glue stick if needed (see next step.) Place mold on a level surface.

E. Place project in the mold with the Mosaic Mount™ on the bottom surface of the mold. Using the glue stick applied minimally between the Mosaic Mount™ and the mold will keep the pattern from shifting in the mold during the pouring operation. Be careful that no glue from the glue stick comes in contact with the mold where there is no Mosaic Mount™ and clean up any accidental smears or smudges. If the clean up is not thorough, the water based glue will react with the water in the DiamondCRETE™ mixture and will streak the finished piece.

F. In separate containers, measure DiamondCRETE™ and water sufficient for the project. Be sure and reserve a small amount of dry DiamondCRETE™ for grouting after the stepping stone is removed from the mold. If you are creating a custom color, measure both dry colors into the same dry bucket and mix the powder together until you see a consistent dry color. With a custom color, it is VERY important that you remember to reserve sufficient dry mix for grouting as it will be difficult to achieve the same color ratio as your original mix.

G. Pour approximately two-thirds of the pre-measured water into the mixing container. Add all of the pre-measured DiamondCRETE™ and begin mixing. Start slowly to avoid splashing and add only enough water to bring the slurry to a thick milkshake consistency. You should not need all of the water, however, exact amounts used will vary by humidity and color of DiamondCRETE™ selected. Increase the vigor of your stirring to insure the strengtheners are properly mixed or simply use a drill with a mixing paddle attachment. Regardless of method used, be sure the slurry is thoroughly mixed before pouring. Slowly, pour the slurry over the glass in the bottom of the mold. From the time the water comes in contact with the DiamondCRETE™ to the time you complete your pour should be no more than 5 minutes.

H. Using a rubber mallet, tap the surface on which the mold is sitting to encourage air bubbles in the DiamondCRETE™ to rise to the back surface of the stone. Make note of the time and allow the stone to harden undisturbed in the mold for approximately 1 hour. If you wish to add your name to the back of the stone, wait about 10 minutes (give or take a few) and use a stylus, nail or other straight object to engrave in the back of your stone.

Project Completion

A. When DiamondCRETE™ has hardened, turn the mold upside down to remove the stone.

B. Remove the Mosaic Mount™ from the glass and using a razor blade, clean up excess DiamondCRETE™ that may have flowed over the glass pieces.

C. Mix some of the reserved DiamondCRETE™ to a very thick paste and grout the stepping stone by pressing the paste into any small holes in the DiamondCRETE™ left between glass pieces and on the sides of the stone.

D. Elevate your project indoors on pencils or wooden dowels for 28 days to allow the DiamondCRETE™ to fully cure. Your stone is weakest on the day it is poured but gains most of it's strength within the first week or two of the curing process.

E. Seal the top, bottom and sides of the stepping stone with DiamondSEAL™. Be sure and sign your art work if you did not engrave in the back during set up!

F. Install your stone in the ground on approximately 1/2" bed of course sand or pebbles to allow for proper drainage of water away from the stone as well as even weight distribution.

G. Enjoy!