

Earthenware Casting Molds

It is fun and easy to make delightful glass frit castings using earthenware molds!

1. The first step is to prime the earthenware casting mold with a select glass separator or refined kiln wash using the manufactures' written instructions. After priming assure that the earthenware casting mold is free of moisture by heating the casting mold to 300 degrees Fahrenheit before filling with frit.
2. After the earthenware casting mold is primed, select the frit colors and grain sizes to work with to achieve your desired design results. Fine frit works great for detail work. You can fill certain areas with fine frit by carefully pouring a small amount of the fine frit into the detail area and sweeping it into the desired areas with a small soft brush, or you can apply a small amount of fusers glue to the desired detail area and sprinkle the fine frit into the glue area. Larger frit pieces will work great to fill the majority of the mold cavity over the detail areas. Using larger pieces of frit to fill the majority of the cavity will give a more transparent, less bubbled finished product. The amount of frit to use in the earthenware casting mold cavity is subjective. Frit "shrinks" down when fired as the glass melts and turns to a liquid state and fills all of the cavity and air pockets. You should always mound the frit with a peak in the middle. As the top of the mound melts it will roll down creating less sharp edges on the sides of the mold. To avoid sharp edges, sweep frit from the walls of the mold cavity towards the center of the cavity in a pile.
3. After the frit is placed into the earthenware casting mold, fire the mold and glass between 1450 and 1500 degrees Fahrenheit at a rate of 400 degrees/hour. (The fusing temperature of the frit will depend upon the COE of the glass- COE 96 glass fuses nicely at 1480 degrees Fahrenheit). Hold the kiln at the fusing temperature for 5-15 minutes (depending on the amount of frit to be melted) and allow the kiln to cool slowly, ideally holding at 900 degrees for an hour and then naturally to room temperature before opening. (If you are operating a kiln that works with a cone, a cone 014 will work nicely. The temperature of a cone 014 is higher then required however, typically kilns that work with cones, don't have a "hold" option and the higher temperature will compensate for this.)
4. After the kiln has returned to room temperature, release the glass casting from the mold by inverting the mold. The glass casting should easily release from the cavity. Occasionally a sharp glass spur will be on the edge of the glass casting. The spurs can be ground using a diamond file or other suitable device using the manufactures' written instructions.

CAUTION: Wear safety goggles when using glass crafting tools. Adult supervision suggested.