



BULLSEYE

GLASS CO.

TIPS FOR USING BULLSEYE SLUMPING MOLDS

Bullseye slumping molds are slipcast from a specially formulated clay body, have an exceptionally smooth surface, accept kilnwash uniformly and do not crack under repeated usage if handled properly.

Some artists report that, if prepared with Bullseye shelf primer, molds need no recoating after months and years of use. See our catalog for the current selection of Bullseye slumping molds.

MOLD PREPARATION

If you are using Bullseye Shelf Primer for your mold separator, prepare it as usual, mixing 5 parts water with one part dry powder. Paint the mold with 5 coats of primer.

If you are kiln-drying the molds, use a slower rate of firing than you would for your mullite kiln shelf. Heating a wet mold too rapidly can cause it to crack. We take about 45 minutes to fire damp molds up to 500°F (~260°C). Soak at this temperature for about 20 minutes. This is for an average-sized mold. Smaller molds may be fired slightly faster, larger molds more slowly.

As long as the primed surface remains free of chips and scratches and the slumping temperature does not exceed 1250°F (~676°C), the mold should serve for many firings. (On our production firings we have re-used one set of molds at least 30 times without re-preparing). When you need to re-prepare, just gently buff off the old primer with a dry scrub pad and apply new primer as above.

With any new mold, we suggest that you first fire a simple, inexpensive glass blank to determine the correct cycle before firing important projects.

Extra Tip: For easy future identification, use a pencil to mark the style number on the side of the mold.

SLUMP FIRING

The temperature and time that it will take to slump a glass blank successfully depends on the diameter of the mold, the depth of the slump and the weight of the glass. With so many variables, it is impossible to recommend a single firing schedule appropriate for all sizes and shapes of finished objects.

In our kilns, we use a narrow range of firing cycles, from 1140°F with a five-minute soak for the shallowest molds like #8722 to 1250°F with a thirty-minute soak for molds with very steep sides (like #8665).

For a piece that is 6mm thick and 12" in diameter, here is a typical schedule we would use for slumping into a medium-depth mold:

RATE	TEMP	SOAK
300°F/hr	1220°F	10-15 min (monitor visually here)
AFAP*	960°F	1 hour
100°F/hr	700°F	1 minute
Kiln is off. Cool to room temp with kiln door closed		

*AFAP: As fast as possible with kiln door closed

Here is an alternative schedule for a similar-sized piece requiring a more conservative schedule. This cycle is typical for a piece that is 12 inches in diameter but with a thickness varying from 6-9mm due to pieces of sheet glass having been previously tack-fused to the surface of a 6mm base of glass.

RATE	TEMP	SOAK
150°F/hr	1220°F	10-15 min (monitor visually here)
AFAP*	960°F	2 hours
50° F/hr	700°F	1 minute
Kiln is off. Cool to room temp with kiln door closed		

*AFAP: As fast as possible with kiln door closed

Successful slumped projects result from careful observation and note-taking. The schedules shown above are just an examples of what works in our kilns (Paragon GL24 with top, side and door elements). Watch your slumped project at full temperature in your own kiln, then modify rates and times to conform to your particular kiln and project.