Seahorse and Shell Dish

In one firing create a graceful dish for holding soap on a vanity, or jewelry or change on a dresser. Make the casting exceptional by fusing a cutout of dichroic or iridized glass onto the back in a second firing.

The Seahorse and Shell Dish mold can be filled with frit, broken sheet glass, casting rocks, or billet chunks. The larger the glass pieces, the more clarity the final casting will have.

Getting Started

Always start the same way: Clean your Colour de Verre Seahorse and Shell mold with a stiff, nylon brush to remove any old kiln wash. (This step can be skipped if the mold is brand new.)

There are only two choices for primers: Hotline Primo™ Primer and ZYP BN Lubricoat™ (formerly MR-97). The ZYP is the easiest to apply and remove. It is an aerosol and, after firing, brushes off easily from the molds and can be washed off the glass pieces. Castings created using ZYP have exceptionally smooth surfaces and almost never require grinding or "cold work."

When applying or removing either of these two primers, it is advisable to wear a dust mask.

Primo is a traditional kiln wash that is applied with an artist's brush. It's a trusted and proven product, but requires a bit more "elbow grease" to remove after firing. Primo's advantages are its low cost and availability.

Brief instructions for each option follow:

To apply ZYP, work in a well ventilated area or outside, and hold the well-shaken can 10 to 12 inches from the mold. Hold both the mold and the spray can upright. Apply the first coat using a four to five-second burst of spray in a sweeping pattern across all the mold's cavities. While spraying, slightly tilt the mold back and forth and left and right to make sure the spray reaches all the inner surfaces. Do not saturate the surface. You should not see "pools" of product forming on the surface. If it is the first time ZYP has been applied to the mold, it is necessary to apply a second coat of the product.

Before applying the second coat, let the mold dry for five minutes. Apply the second coat using another four to five-second burst of spray. Let the mold dry for ten to fifteen minutes before filling. Again, the double coat of ZYP only need be applied the first time the mold is used. Thereafter, only one coat is necessary. For more information about ZYP, visit Colour de Verre website's Learn section. There, download and read "Advanced Priming with Boron Nitride Aerosol" and watch the video "Priming with ZYP BN Lubricoat."

Availability

Colour de Verre molds are available at fine glass retailers and many online merchants including our online store, www.colourdeverre.com.

Tools

- ✓ A Colour de Verre Seahorse and Shell Dish mold
- ✓ Large artists' brush
- ✓ Digital scale
- ✓ Dust mask

Supplies

- ✓ Hotline Primo Primer™ or ZYP BN Lubricoat (formerly MR-97)
- ✓ Assorted frits, sheet glass, billets, casting rocks, etc.

If you choose to use Primo Primer, mix one part dry primer powder with four parts water. Next, give the molds *five* coats of Hotline Primo Primer™.

Apply the Primo Primer™ with a soft artist's brush - not a hake brush - and use a hair dryer to completely dry each coat before applying the next. The mold should be totally dry before filling. The primer need not be pre-fired.

One important hint: This primer settles very quickly. Each time the brush is dipped, be sure to give the primer a good stir so all the ingredients stay in solution. If the primer has sat more than five minutes, the active ingredients will cake on the container's bottom. Make sure to stir these sediments back into solution.

Filling the Molds

The molds are intended to be used with COE 96 or COE 90 art glass. Colour de Verre molds should not be used with borosilicate, Pyrex, crushed bottles, or float glass. High temperatures can have negative effects on both the molds and the primers. When using frits, especially powders, it is advisable to wear a dust mask.

We find a convenient choice for filling this mold is mosaic size frit. Choose light, transparent colors as the color will intensify as the casting is much thicker than standard sheet glass. That said, frit of any mesh, billets, or casting rocks can be used. If you are using opal frits, better results are obtained by mixing the opal frit with an equal amount of clear frit. An economical choice is to use leftover sheet glass that has been cut or broken into small chunks. Whatever the glass type, fill the primed mold with 750 grams of glass. Slightly mound the glass as shown in the photographs.

Firing the Molds

Place the filled mold into the kiln. Use either Casting Schedule #1 or Casting Schedule #2 depending on the materials used to fill the molds. Don't rush the schedule's slow cooling ramp as this allows for proper annealing. Also note that the schedules need to be modified for kiln load, COE, and glass color. Heating element position can also effect firings. Use lower temperatures when using a top element kiln.

Base Feet

Give cast boxes a professional finish with the addition of feet. Use peel-and-stick, silicon cabinet bumpers, e.g. 3M Bumpon™, available from most hardware

Casting Schedule #1*

For Fine and Medium Frit

Segment	Ramp	Temperature	Hold
1	300°F/165°C	1250°F/675°C	30 minutes
2	300°F/165°C	1410-1420°F/765-770°C	10-20 minutes
3	AFAP	960°F/515°C	60 minutes
4	50°F/30°C	800°F/425°C	None
5	100°F/60°C	400°F/200°C	Off. No venting

Casting Schedule #2*

For Sheet and "Chunky" Glass

Segment	Ramp	Temperature	Hold
1	300°F/165°C	1250°F/675°C	30 minutes
2	300°F/165°C	1430-1440°F/775-780°C	30-45 minutes
3	AFAP	960°F/515°C	60 minutes
4	50°F/30°C	800°F/425°C	None
5	100°F/60°C	400°F/200°C	Off. No venting

*Schedule for COE 96. For COE 90, increase casting temperature by 15°F/8°C. AFAP means "As Fast As Possible", no venting.

stores. This will also protect tabletops.

Variation: Filling Sea life

A great effect can be created by filling the seahorses and/or small shell with a contrasting frit color.

Again, starting with a freshly primed mold, sift a small amount of Black powder into the sea horses and small shell. This will accentuate the mold's fine detail. Next, stabilize the powder by adding a fine frit to fill the depressions. The fine frit can be the same color as the glass chosen for the body or a contrasting color.

Fill the rest of mold in the matter described in the previous section. Make sure that the total amount of glass in the mold is 750 grams.

Variation: Backing the Piece

Exceptional results can be created by backing the cast piece with a sheet of colored, iridized, or dichroic glass.

Cast the Seahorse and Shell Dish as described above in either Clear or a light, transparent color using mosaic frit, glass sheet pieces, casting rocks, or billet pieces. (This will ensure the greatest clarity.) Fire the mold using Casting Schedule #2.

When the kiln and mold cools, remove the mold from the kiln and remove the casting. Wash the casting to remove any traces of primer. Clean and reprime the mold and *carefully* place the casting back into the mold.

Place the sheet of glass on the workbench. If the glass is coated (iridized or dichroic), make sure the coated side is down.

Use the template to cut a backing piece from the sheet glass. Carefully place the piece of glass into the mold on top of the casting. If the backing piece was cut from either iridized or dichroic glass, make sure the coating side is down, facing the casting. It is often helpful to use a small dab of white glue to hold the sheet glass in place.

Backing Schedule*

Segment	Ramp	Temperature	Hold
1	150°F/85°C	300°F/150°C	30 minutes
2	250°F/140°C	1250°F/675°C	10 minutes
3	300°F/165°C	1420°F/770°C	10-20 minutes
4	AFAP	960°F/515°C	60 minutes
5	50°F/30°C	800°F/425°C	None
6	100°F/60°C	400°F/200°C	Off. No venting

*Schedule for COE 96. For COE 90, increase target temperature by 15°F/8°C. AFAP means "As Fast As Possible", no venting.

Return the mold and glass back to the kiln and fire using the Backing Schedule.

Dichroic sheet glass from CBS Coatings by Sandberg.