Tropical Fish, Sea Horses and Starfish

These instructions are for casting beautiful elements using our Tropical Fish mold and Sea Horse and Starfish mold. We have developed a cooler than usual firing schedule that results in delicate, finely-detailed imagery.

Always start by priming your molds. There are two products you can use: Hotline Primo Primer™ and MR-97 Boron Nitride Spray.

With either product, clean the mold with a stiff nylon brush to remove any old kiln wash or boron nitride. (This step can be skipped if the mold is brand new.)

If you are using Hotline Primo Primer, mix the product according to directions. Apply the Primo Primer™ with a soft artist's brush and use a hair dryer to completely dry the coat. Give the mold four to five thin, even coats drying each coat with a hair dryer before applying the next. Make sure to keep the Primo well stirred as it settles quickly. The mold should be totally dry before filling. The is no reason to pre-fire the mold.

While there are plenty of good shelf primers and kiln washes on the market, the only one Colour de Verre recommends for our molds is Hotline Primo Primer™. It doesn't obscure the mold's fine detail, always releases, and is easy to remove after firing.

If you prefer to use MR-97 (old packaging still might say ZYP Lubricoat) rather than a traditional primer, again clean the mold and make sure there is no old kiln wash or boron nitride on the surface.

The first time MR-97 is used on a mold, it is necessary to apply two coats of the product. Hold the can 8 to 10 inches from the mold. Apply the first, light coat using a one to two-second burst of spray in a sweeping pattern across all the mold's cavities. Do not saturate the surface. Set the mold aside for five minutes so it can dry. Once dry, apply a second coat using another one to two-second burst of spray. Let the mold dry for ten to fifteen minutes. The mold is ready to fill. See our website's Project Ideas section for more detailed instruction about priming Colour de Verre molds with boron nitride.

Filling the Sea Horse and Starfish Mold

Each sea horse cavity holds 7 to 9 grams of frit. The starfish cavity holds 12 to 18 grams. We refer to these measurements as fill weights.

Before filling the mold, one can highlight the design's details by "dusting" the mold surfaces with a little Black powder using a fine-screen sifter. The powder collects in the crevasses and highlights the detail. (It is always best to wear a dusk mask when working with frits and aerosols.)

If only one color is being used to fill each cavity, the frit can be

Availability

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

Tools

- ✓ Colour de Verre molds
- ✓ Small primer brush
- ✓ Digital scale
- ✓ Sifter
- ✓ Assorted measuring spoons

Supplies

- ✓ Hotline Primo Primer™ or MR-97 Boron Nitride
- ✓ Assorted powder and fine frits

weighed and poured into the cavity. However, most people will want to use combinations of fine frit. This is where a scale's tare function can be very handy.

Fill Weights

Design	Fill Weights
Sea Horse and Starfish	Sea horses, 7 to 9 each; starfish 12 to 18
Tropical Fish	Large fish, 32 to 36; small fish 12 to 15 each

Place the primed mold on the scale. Press the tare button to zero the scale. Place frit mixtures into the mold until scale displays the fill weight.

To make our samples, we used fine mesh frit. Further, we mixed our frit colors with equal amounts of fine clear frit. The results were more subtle, less saturated castings.

Some interesting frit mixtures with which to experiment are:

Fine Tangerine+Fine Clear
Fine Light Orange+Fine Clear
Fine Persimmon Opal+Fine Clear
Fine Flame Opal+Fine Clear
Fine Marigold Opal+Fine Clear
Fine Almond Opal+Fine Clear
Fine Yellow+Fine Clear

(The above colors are Uroboros/Spectrum/System 96 colors. Similar colors can be found in Bullseye's and other companies' products lines.)

Gently layer in the frit mixtures until the scale reads the fill weight of each design. Use an art brush or finger tip to level the frit.

Fire the mold according to the Firing Schedule. The low temperatures of this schedule will preserve the designs' delicate edge detail and keep the glass from "balling up" due to surface tension.

Filling the Tropical Fish

The Tropical Fish design makes four fish with each firing: One large fish and three smaller ones. The larger fish holds 32 to 36 grams of frit. The smaller fish each hold 12 to 15.

Like before, use a small sifter to dust the fish's heads, tails, and fins

with a very small amount of Black powder frit. This will highlight the designs' details.

Fill each fish to the individual fill weights using one or more of the above frit combinations (or a combination of your own.) It is necessary to either zero (tare) the scale between filling each fish, or to weigh the frit before adding to the mold.

Use an art brush or finger tip to level the frit. Fire the mold according to the Firing Schedule.

Firing Schedule*

Segment	Ramp	Temperature	Hold
1	300°F/165°C	1290-1310°F/700-710°C	20 to 30 minutes
2	AFAP	960°F/515°C	30 minutes. Off. No venting.

*Schedule for COE 96. For COE 90, increase casting temperature by 25°F/15°C. AFAP means "As Fast As Possible", no venting.