



### Round Votive

*Small, sweet and easy-to-make. Use spectacular art glass or get creative with stringers, noodles, frit and other embellishments. The Round Votives are thoughtful gifts that can be customized to match any recipient's taste.*



The Round Votive design consists of two ceramic molds. One mold is short and shallow with a depression on one side. This casts the votive's base. The other ceramic piece looks like a tunnel from a small, toy train set. It shapes two glass panels into half cylinders that become the votive's sides. These little glass panels can be anything from a beautiful piece of richly colored art glass, to a composition of sheet glass, frit, stringers, noodles, and other "accessory" glass. Think of these

panels as little canvas to express your creativity.

### Preparing the Molds

Both the casting mold and forming mold must be primed so the glass doesn't adhere to the ceramic material. There are two choices for primers: Hotline Primo™ Primer and ZYP BN Lubricat (formerly MR-97). The ZYP is the easiest to apply and remove. It is an aerosol and, after firing, brushes off easily from the mold. Castings created using MR-97 have exceptionally smooth surfaces and almost never require grinding or "cold work."



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 time to apply, and more "elbow grease" to remove after firing. Primo's big advantages are its low cost and availability.

Brief instructions for each option follow:

To apply ZYP, start by using a thin line marker like a Sharpie to draw a line connecting the two arrows on the forming mold's top. This line will slightly show through the ZYP and is used to perfectly position glass panels. Next, hold the can of ZYP and the forming mold vertically about 10 to 12 inches apart.



Using Nano Beads and Frit Balls as Embellishments

Apply the first, light coat using a three-second burst of spray in a sweeping pattern. Do not saturate the surface. If it is the first time ZYP has been applied to this 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 three-second burst of spray. In either case, let the mold dry for ten to fifteen minutes before using. Again, the double coat of ZYP

### Availability

*Colour de Verre molds are available at fine glass retailers and many online merchants including our online store, [www.colourdeverre.com](http://www.colourdeverre.com).*

### Tools

- ✓ Small artist's brushes
- ✓ Digital scale
- ✓ Round Votive mold set
- ✓ Thin line marker
- ✓ Diamond pads or grinder

### Supplies

- ✓ Fine or Medium frit
- ✓ ZYP BN Lubricat (formerly MR-97) or Hotline Primo™ primer
- ✓ Sheet glass
- ✓ E6000 Adhesive

need be only applied the first time. Thereafter, only one coat is necessary.

Repeat the same procedure for the base casting mold. Again, hold the can of ZYP and the casting mold vertically about 10 to 12 inches apart. Apply the first, light coat using a three-second burst of spray in a sweeping pattern. If ZYP has never been used on the mold, wait five minutes and apply as second coat.

For complete information about using ZYP, visit Colour de Verre website's Project Ideas section. There, download and read Advanced Priming with Boron Nitride Aerosol.

If you choose to use Primo Primer, give your mold three to four thin, even coats of Hotline Primo Primer kiln wash. Use a soft artist brush - not a hake brush - to apply the Primo Primer and a hair dryer to completely dry each coat before applying the next. Again, more detailed instructions can be found in the Project Ideas section of Colour de Verre's website.

Once the Primo Primer has completely dried, use a thin line marker to lightly draw a line connecting the two arrows on the panel former. This helps perfectly position glass sheets on the top of the former.

For more information, see Tricks of the Trade in our website's Learn section.



### Making the Base

Place the casting mold on the workbench with the depression side up.

Both fine and medium frit can be used, but fine frit will produce the most consistent color with fewer air bubbles. Frit can either be used straight from the manufacturer's container or blended. We find the best results are usually obtained by "diluting" colored frit with clear frit. Even dark, opaque colors like

blacks and browns become much more rich when mixed with clear frit. (See our document Creating Frit "Paint Chips") It is important to remember that, when using frit, to wear a dusk mask.

Fill the cavity with 80 grams of your frit or frit mixture. Use a small artist's brush to evenly level the frit.



Tack Fused Pale and Medium Amber Rods

Place the filled casting mold on a leveled kiln shelf and fire

### Base Firing Schedule\*

Segment	Ramp	Temperature	Hold
1	300°F/165°C	1420°F/770°C	5-10 minutes for fine frit 15-20 minutes for medium frit
2	AFAP	960°F/515°C	60 minutes.
3	100°F/55°C	600°F/315°C	Off. No venting

### Panel Slumping Schedule Schedule\*

Segment	Ramp	Temperature	Hold
1	300°F/165°C	1275°F/690°C	10 minutes
2	AFAP	960°F/515°C	60 minutes
3	100°F/55°C	600°F/315°C	Off. No venting

### Tack Fusing Schedule\*

Segment	Ramp	Temperature	Hold
1	300°F/165°C	1300°F/705°C	10-15 minutes
2	AFAP	960°F/515°C	60 minutes
3	100°F/55°C	600°F/315°C	Off. No venting

\* Schedule for COE 96. For COE 90, increase casting temperature by 20°F/10°C. AFAP means "As Fast As Possible", no venting.

according to the Base Firing Schedule.

### Forming the Panels

First a note: While a few extra grams added to the casting mold won't matter, it is very important to accurately cut the panels. Make sure to measure and mark carefully and to allow for the width of the cutter head when scoring the glass.



Beautiful Uroboros Collage Glass

Cut two panels 3½" (9 cm) wide and 2¾" (7 cm) tall. The second dimension determines the height of the votive. The 2¾" height creates a nicely proportioned finished piece, but the panels' height can be varied by the user. If panels are made small, both can be slumped at the same time. Larger panels have to be slumped in two firings.



Panels Lined-up and Ready to Slump

Next, lightly grind away any sharp edges on the panels. Don't worry: The edges will be fire polished in the hotter-than-usual slumping temperatures.

Use a ruler to find the middle point on both 3½" (9 cm) sides of both glass pieces. Mark these four points with a marker. Straddle each panel on the panel former making sure the marks on the panels are directly over the line on the former connecting the two arrows. Place the former and the two glass pieces into the kiln. Fire according to the Panel Slumping Schedule.

*Tip: It can be difficult to make sure the panels stays in position as you move the former to the kiln. To ensure the panels don't move, apply small drops of white glue (we like Aleen's Tacky Glue) adjacent to the marks on each glass piece. Position the panels on the former and wait until the glue has dried before moving the former.*



Fun with Noodles

### Assembling the Votive

Start by cleaning the glass to remove any traces of the primer. On a clean, flat surface, place the two slumped panels together to

form a tube standing on end. Use masking tape strips to hold the tube together.

Squeeze a small amount of E6000 adhesive about the size of two raisins onto a piece of stiff paper. Use a small, disposable tool (we like Q-Tips with the cotton cut off) to evenly distribute about eight dabs of E6000 from the stiff paper card to the inside, bottom edge of the tube.

Place the tube on the cast base, centering the tube over the raised ring. Allow the adhesive to dry for 24 hours. Any extra adhesive can be trimmed away with a sharp knife after the glue cures.

To create a really finished and professional look, place three Bumpons (available in most hardware stores) on the votive's base as soon as the adhesive has dried.



Glacial Art Glass Murini

*Tip: If you prefer, Triolyse or UV-cured adhesives can be used. Follow package instructions.*

### Making Embellished Votives

To create more intriguing votives, consider creating panels by combining sheet glass or

embellishing sheet glass with noodles, stringers, frit balls, etc. To attach these elements, use the Tack Fusing Schedule.



CBS Borderline Patterns Fused to Thin Blue Irid



Snowflake '13 tacked to Uroboros Neon Orchid Irid



Frit Balls and Streamer Bits Glass



Noodles Tack Fused to Clear



Spectrum STRIPES Glass

*Tip: Keep the panels light so the finished votives aren't "clunky." Don't tack fuse on excessive embellishments. Further use thin (2mm) glass if multiple sheet are being fused together to form the panels.*

### Reusing the Molds

Clean the mold thoroughly after each firing with a stiff, nylon bristle brush. Avoid breathing any dust by wearing a proper dust mask. Reapply primer before subsequent firings.

If correctly primed and fired, a Colour de Verre mold will yield many castings.