



### Simple Round Beads Small Ring Beads

*Our Bead designs are contemporary, fashionable, and practical. They are easy-to-make and great-to-give since the recipient can further customize the piece by adding, removing, and rearranging the beads to create a whole new look.*

#### Preparing the Molds

The molds must be primed so the glass doesn't adhere to the ceramic material from which the molds are made. There are two choices for primers: Hotline Primo™ Primer and ZYP BN Lubriccoat (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 pieces. Castings created using ZYP 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 "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, hold the well-shaken can 10 to 12 inches from the mold. Apply the first, light coat using a two to three-second burst of spray in a sweeping pattern across all the mold's cavities. 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 two

to three-second burst of spray. In either case, let the mold dry for ten to fifteen minutes before filling. Again, the double coat of ZYP need be only applied the first time. Thereafter, only one coat is necessary. For more information about ZYP, read *Priming with ZYP Spray*.

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 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 Learn section of Colour de Verre's website. See *Tricks of the Trade*. When using Primo Primer, best results are obtained when using fine frit. Larger frit can produce excessive casting spurs that require cold work.

#### Tools

- ✓ Small artist's brushes
- ✓ Digital scale
- ✓ Colour de Verre Simple Round Bead and Small Ring Beads molds
- ✓ Small measuring spoons

#### Supplies

- ✓ Fine or Medium Frit
- ✓ ZYP BN Lubriccoat (formerly MR-97) or Hotline Primo™ primer

**Filling the molds**

Frit can either be used straight from the manufacturer's container or blended. However, 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 each cavity according to the chart below and level frit with a small artists brush. Place the filled

Design	Grams of Frit per Cavity
Simple Round Beads	Small - 7 Gram Medium - 9 Grams Large - 17 Grams
Small Ring Beads	3 to 4 Grams

molds on a leveled kiln shelf and fire according to the Firing Schedule shown below.

**Stringing the Beads**

A favorite material for stringing the beads is 3 to 5mm rubber cord, but one can use leather, silk or stainless steel cords or ribbon.

**Reusing the Molds**

Clean 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 these molds will yield many castings.

**Variations**

Beads can be made more delicate by adding less frit. Rustic, uneven beads can be created by firing the mold with a 1/8" to 1/4" high stack

of fiber paper under one side or by filling the mold unevenly. In our studio, we call these "Wonky" beads.

Dichroic beads can be created by placing a layer of fine, Black frit into the mold. A layer of crushed, black-backed dichroic is then arranged on top of the fine, Black frit. Finally, a layer of medium Clear frit is used to "cap" the dichroic glass. Since these variation leads to beads that are most often used as focal pieces, one need not be as concerned about the recommended fill weights.



**Firing Schedule\***

Segment	Ramp	Temperature	Hold
1	300° F/165° C	1420° F (770° C)	10 minutes for fine frit 20-25 minutes for medium frit 25-35 minutes for coarse frit
2	AFAP	960° F/515° C	30 minutes. Off

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

Dramatic mottled effects can be created by mixing different color coarse frit. If one is using coarse frit, best results are obtained by using ZYP.



Small Ring Beads made wonky with one to two grams of frit



A chart showing castings from three Colour de Verre jewelry designs.



Close up of under filled, wonky beads.