



### *Cherubs and Wings*

*Either together or separately, these designs are reminiscent of classic 16th century motifs.*



You can use our Wings design to “give flight” to Colour de Verre designs like the Cherub, 3” Heart, and Flaming Heart. The Wings can also be used as ornaments, or as embellishments on plates and platters. Cast the Cherub with a minimal amount of frit and use it as an embellishment or ornament. Use the full fill weight to create an *objet d’art* or paper weight for a friend’s desk or mantle.

This project sheet describes how to prime, fill, and fire both molds. It continues to show how to create a small platter with Italianate imagery by combining the two designs.

### Priming the Molds

Always start by priming Colour de Verre molds. There are two products that can be used: Hotline Primo Primer™ and ZYP BN Lubriccoat.

With either product, clean the mold with a stiff nylon brush and/or toothbrush 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 (not a hake 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. There is no reason to pre-fire the mold.

To use ZYP, hold the can 10 to 12 inches from the mold. Apply a light coat using a three-second burst of spray in a sweeping pattern across the mold’s cavity or cavities. Do not saturate the surface. Set the mold aside for five minutes so it can dry. If the mold has never been used with ZYP before, apply a second coat using an-

other three-second burst of spray. Let the mold dry for ten to fifteen minutes. The mold is ready to fill. ZYP will result in fewer casting spurs and crisper detail.

See our website’s Learn section for more instructions about priming Colour de Verre molds with ZYP.



### Filling the Cherub

The suggested fill weight for a Cherub is 70 to 150 grams. A 70 gram fill produces a casting that can be used for an embellishment, incorporated into a larger work. A 150 gram fill weight produces a casting that stands by itself as an *objet d’art* or paper weight.

To fill the Cherub mold weigh out between 70 to 150 grams of fine frit and evenly distribute it in the mold. Fire the mold and frit according to the appropriate casting schedule below.

### *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

- ✓ Colour de Verre Wings mold
- ✓ Colour de Verre Cherub mold
- ✓ Digital scale
- ✓ Frit sifter
- ✓ Assorted measuring spoons

### Supplies

- ✓ Hotline Primo Primer™ or ZYP BN Lubriccoat
- ✓ Assorted powder and fine frits
- ✓ Sheet glass
- ✓ Kiln shelf paper



*Tip: When using opalescent or richly colored transparent frits, consider using fine mesh frit and “diluting” the color with equal amounts of clear frit. This produces casting with more richness and depth.*



### Filling the Wings

The suggested fill weight for a Wings is 40 grams each if using fine frit. (For a smaller and more delicate wing, use as little as 18 grams of powder frit per wing.)

To accentuate the mold’s details, start by sifting one to two grams of black powder into the mold. While this first step isn’t essential, we believe it produces much better results.

Place a small sifter on a piece of paper and load the sifter with the powder. Hold the sifter over the mold and tap the sifter to distribute a fine layer over the mold’s surface. Once all the black powder is in place, tap the side of the mold with your hand in several places to cause the powder to collect in the detail.

*Note: We believe it is always important to wear a dust mask when working with glass powders or other fine particles.*

Next, weight out 40 grams of fine frit (or a frit mixture) and distribute it evenly into one of the cavities. Repeat the process for the second cavity. Fire according to the appropriate casting schedule below.



### Casting Schedule for Powder\*

Segment	Ramp	Temperature	Hold
1	300°F/165°C	1270°F/687°C	20 minutes
2	AFAP	900°F/482°C	60 minutes
3	150°F/83°C	100°F/38°C	Off. No venting

### Casting Schedule for Fine Frit\*

Segment	Ramp	Temperature	Hold
1	300°F/165°C	1330°F/721°C	60 minutes
2	AFAP	900°F/482°C	60 minutes
3	100°F/60°C	100°F/38°C	Off. No venting

\* Schedule for Bullseye glass. For COE 96 glass, decrease target temperature by 20°F/10°C. AFAP means “As Fast As Possible”, no venting. Anneal at 960°F/515°C.

### Creating an Italianate Plate

Start by creating two sets of Wings castings and two Cherub castings using the processes described above. For the Wings we used one to two grams of black powder sifted into the mold followed by a mixture of 50/50 mixture of opaque white and clear fine frit. These were fired using the Casting Schedule for Fine Frit.

Since we want the Cherubs to be smaller and delicate, we used 60 grams of opaque white (Bullseye 013) powdered frit. These were fired using the Casting Schedule for Powder. (The opaque white frit produces a beautiful matte finish at lower temperatures that is reminiscent of porcelain.) After the castings are cool, make sure to wash them thoroughly to remove any primer residue.

Next we created a panel by fusing together two sheets of glass. For our project we chose a beautiful Bullseye Glass iridescent medium amber and a sheet of clear. The glass sheets were cut to about 9.5” (24 cm). The clear glass was

placed on a kiln shelf protected with firing paper and the amber glass was placed on top - iridescent surface up. The kiln was then fired according to the Panel Fusing Schedule.

### Panel Fusing Schedule\*

Segment	Ramp	Temperature	Hold
1	300°F/165°C	1250°F/676°C	30 minutes
2	300°F/165°C	1440°F/782°C	10 minutes
3	AFAP	900°F/482°C	60 minutes
4	150°F/83°C	100°F/38°C	Off. No venting



Once cooled the panel was moved to the workbench. The Cherub and Wings castings were arranged on the panel and were temporarily secured using small dabs of white glue.

### Tack Fusing Schedule\*

Segment	Ramp	Temperature	Hold
1	150°F/83°C	300°F/150°C	10 minutes
2	250°F/138°C	1200°F/649°C	30 minutes
3	200°F/111°C	1250°F/676°C	10 minutes
4	AFAP	900°F/482°C	60 minutes
5	50°F/27°C	600°F/315°C	0 minutes
6	100°F/60°C	100°F/38°C	Off. No venting

### Slumping Schedule\*

Segment	Ramp	Temperature	Hold
1	50°F/27°C	150°F/66°C	10 minutes
2	75°F/42°C	300°F/150°C	10 minutes
3	100°F/60°C	1225°F/663°C	10 minutes
4	AFAP	900°F/482°C	60 minutes
5	50°F/27°C	600°F/315°C	0 minutes
6	100°F/60°C	100°F/38°C	Off. No venting

\* Schedule for Bullseye glass. For COE 96 glass, decrease target temperature by 20°F/10°C. AFAP means "As Fast As Possible", no venting. Anneal at 960°F/515°C.

cooled, remove it from the kiln and place it on a kiln washed slumper. (We used the Bullseye 8634 slumper.)

Transfer the piece to the kiln and fire according to the slumping schedule. Again, wait for the piece to completely cool before removing from the kiln.



The assemblage was again placed on a kiln shelf protected by firing paper and was fired according to the Tack Fusing Schedule.

*Note: These schedules may seem long and cautious. However, there is a wide range of thicknesses in the piece and care must be taken to both heat and cool it evenly*

Once the piece has completely



Under fill our 3" Heart mold with 50 to 70 grams of powder or fine frit



Combine the Wing with castings from our underfilled 3" Heart Design