



Winter Box

Like most studios, our studio has a box of interesting glass remnants too beautiful to just to toss away. The Winter Box project was inspired by a small piece of Uroboros Winter Collage glass left over from a bigger project.

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Feel free to modify this project to account for any glass remnant you might have in your studio. Choose frit colors to compliment your sheet glass color.

Getting Started

Always start the same way: Clean your Colour de Verre molds with a stiff, nylon brush to remove any old kiln wash. (This step can be skipped if the mold is brand new.) Mix one part dry primer powder with four parts water. Next, give the molds *five* coats of Hotline

Primo Primer™. While there are plenty of good shelf primers and kiln washes on the market, Colour de Verre *only* recommends Hotline Primo Primer™ for the Colour de Verre molds. It always releases and is easy to remove after firing.

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.

Apply the Primo Primer™ with a 3/4" soft artist's brush and use a hair dryer to completely dry each coat before applying the next. The mold should be totally dry before filling.

Creating the Lid

The lid mold has a rectangular depression. This depression forms the lid's inner lip that keeps the lid aligned with its base. Select an interesting section of the collage glass and cut a 3 1/8" by 2 3/8" (80 x 60 mm) rectangle. Round the corners and edges with a small, table-top grinder or diamond pad so that piece fits into the depression. Put the empty lid mold on a

digital scale and tare or "zero" the scale. Place the small piece of collage glass in the mold's depression and evenly fill the mold with coarse, water clear frit until the scale reads the mold's "fill weight," 220 grams. The fill weight is the optimal amount of glass to cast in the mold. Set the filled lid mold aside.



Filling the Base

So the patterning of the lid stands out and isn't visually confused by glass in the box's base, we will make the box's interior a 50/50 mixture of fine White Opal and clear fit. Into a clean, lidded container mix 75 grams of White Opal and 75 Water Clear frit. Add this mixture to the mold and arrange it so the entire bottom of the mold and the "hump" is covered.

Use the digital scale to weight out 150 grams of Winter Collage scrap sheet glass. Place this glass in

Tools

- ✓ Colour de Verre Rectangular Box
- ✓ Lid and Base mold set
- ✓ 3/4" Soft artist's brush
- ✓ Digital scale
- ✓ Lidded container
- ✓ Diamond pad or grinder

Supplies

- ✓ Hotline Primo Primer™
- ✓ Fine White Opal and Water Clear frit
- ✓ Coarse Water Clear frit
- ✓ Collage glass



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Technical sheet courtesy of Colour de Verre™

a heavy plastic bag and use a hammer to break it into mosaic size pieces. **MAKE SURE TO WEAR SAFETY GOGGLES.** Mix this homemade frit with an equal amount (150 grams) of coarse, Water Clear frit.



Carefully layer the frit mixture into the mold on top of the white frit mixture. The mixture should be slightly mounded. When casting with large frit, billets, or sheet glass, hot glass pieces drag down the mold's interior sidewalls as they melt and compact. This action may cause glass spurs to develop on the piece's perimeter. Mounding the frit towards the mold's center reduces glass spurs along casting's perimeter.



Fire both the base and lid molds according to the Casting Schedule.

Fire Polishing

Since this project contains large frit pieces, it is likely that glass spurs will develop. If the casting has any spurs, remove with a power grinder or a diamond pad. Clean and re-prime the molds, and place the smoothed pieces into the freshly primed molds. Re-fire the piece according to the Fire Polish Schedule.



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 stores. This will also protect tabletops.

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Casting Schedule*

| Segment | Ramp | Temperature | Hold |
|---------|-------------|-----------------------|-----------------|
| 1 | 300°F/165°C | 1250°F/675°C | 30 minutes |
| 2 | 300°F/165°C | 1410-1430°F/765-775°C | 30-60 minutes |
| 3 | AFAP | 960°F/515°C | 90 minutes |
| 4 | 50°F/30°C | 800°F/425°C | None |
| 5 | 100°F/60°C | 600°F/315°C | 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.

Fire Polish Schedule*

| Segment | Ramp | Temperature | Hold |
|---------|-------------|-----------------------|-----------------|
| 1 | 200°F/110°C | 1300-1350°F/705-730°C | 10-20 minutes |
| 2 | AFAP | 960°F/515°C | 90 minutes |
| 3 | 50°F/30°C | 800°F/425°C | None |
| 4 | 100°F/60°C | 600°F/315°C | 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.