

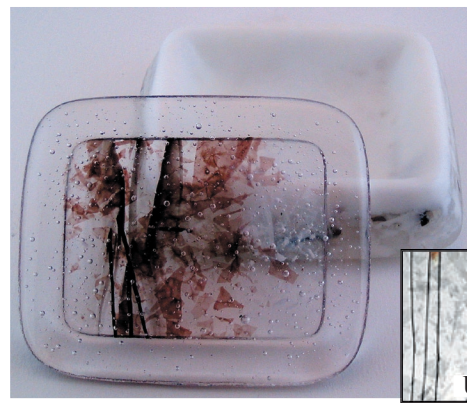
# COLOUR de VERRE

GLASS CASTING SYSTEM



## Winter Box Kit Project and Tip Sheet

See the instructions below and learn how to make it!



UR 1405-96\*

Colour de Verre  
Rectangular Box, 4"x5"

\*This glass was substituted for Uroboros collage glass as collage glass is System96 compatible, but not certified and tested.

### Elegant Winter Glass Box Instructions

#### Preparation

- Clean the molds and remove any signs of used kiln wash from previous firings (you can use a stiff, nylon brush).
- Apply five coats of Hotline Primo Primer, allowing each layer to dry before applying the next (you can use an old hairdryer to expedite this process; also Primo Primer's packaging calls for the primer to be pre-fired, however Colour de Verre has never found this necessary when using their molds).

#### Filling The Lid

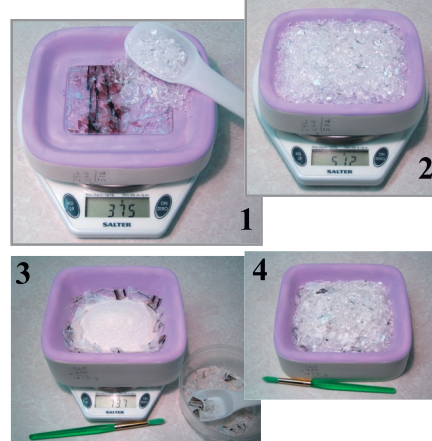
- Find an interesting section of the supplied glass (UR 1405-96) and cut it and grind it to fit in the depression of the lid mold.
- Use an inexpensive digital scale to weigh the lid, and tare (zero) it - now you can add the glass and frit to it to the fill weight of the lid (220 grams). Add the piece of glass that you have cut and ground to fit the depression, and then add the coarse water clear frit until the scale reaches 220 grams (fill weight).

#### Filling The Base

- The box's interior is a mixture of fine white opal and fine clear frit. This was to ensure that the patterning of the lid would stand out and not to be visually confused by glass in the box's base. First, we need to mix that frit so that the white and clear are evenly blended. Start by placing a clean empty container on the scale, and tare (zero) it (note that the fine mixture will total 300 grams, and the coarse mixture will total 150 grams, for a total fill weight of 450 grams).
- For the fine portion of the base, add 150 grams of fine white opal frit, then 150 grams of fine water clear frit (total of approx. 300 grams) to your clean container. Remove it from the scale and mix it thoroughly and put it aside.
- For the coarse portion of base, put another clean container on the scale, and once again, and tare (zero) it. Crush up some of the remaining sheet glass from the lid components, and mix it with some of the coarse water clear frit. In our studio, we made a 50/50 mixture totalling the required 150 grams. This can be crushed using a hammer and heavy plastic bag, or you can use your knippers to cut the glass into coarse pieces (we used knippers, and made sure that the glass was cut in a way that we would have the maximum number of black and white flecks in our homemade frit). Mix it well and set it aside.
- For the last combining step, add the fine white opal/clear frit mixture to the base by mounding it into the centre of the mold. Then carefully add the water clear and sheet glass frit mixture on top, again, mounding it towards the centre. *When casting with large frit, billets, or sheet glass, hot glass pieces drag down the mold's interior as they melt and compact. This action will cause glass spurs to develop on the piece's perimeter. Mounding the frit towards the molds' centre reduces glass spurs along casting's perimeter. If this mounding practice is followed and only fine frit is used, spurs won't form at all and any cold work can be eliminated.* See the photos, casting and fire polishing schedules.

#### Winter Box Kit Includes The Following Items:

| Description  | Qty | Code         |
|--|-----|--------------|
| • 8.5oz jar fine white opal frit   | 1   | UR F2-200-96 |
| • 8.5oz jar fine water clear frit  | 1   | UR F2-01-96  |
| • 8.5oz jar coarse water clear frit  | 1   | UR F5-01-96  |
| • 6"x6" Uroboros Clear w/ White Fractures and Black Stringer*  | 1   | UR 1405-96   |
| • Colour de Verre rectangular box, 4"x5"   | 1   | FUS M0708    |
| • Soft Artists' brush  | 1   | FUS PRI      |
| • Hotline Primo Primer, 1.5lb  | 1   | FUS 48235    |
| • Glass Patterns Quarterly, current edition, featuring this project from Colour de Verre to help you promote the kit to your customers | 1   | BK 6450      |
| • Project sheet included   |     |              |



**Photos 1 and 2:** The cut and ground glass is added to the lid, and is then topped up with coarse water clear frit to total the lid's fill weight of 220 grams.

**Photo 3 and 4:** The fine white/water clear frit mixture is added to the base, taking care to mound it up in the centre. Then the coarse water clear/homemade frit mixture is added on top of the fine mixture, again, taking care to add some to the sides, and mounding up the rest for a total fill weight of 450 grams for the base.

#### Casting Schedule

The molds were fired at 1420°F degrees as follows:

|       |                                       |                  |
|-------|---------------------------------------|------------------|
| Seg.1 | 300°F (165°C) /hour to 1250°F (675°C) | Hold 30 min      |
| Seg.2 | 300°F (165°C) /hour to 1420°F(770°C)  | Hold 30-60 min** |
| Seg.3 | AFAP*, no venting, to 960°F (515°C)   | Hold 90 min      |
| Seg.4 | 50°F (30°C) /hour to 800°F (425°C)    | No Hold          |
| Seg.5 | 100°F (60°C) /hour to 600°F (315°C)   | Off - No venting |

\* AFAP (As Fast As Possible) = Full = 9999 = SKIP

\*\*All kilns are different, therefore slight adjustments may need to be made in the hold times and/or temperatures.

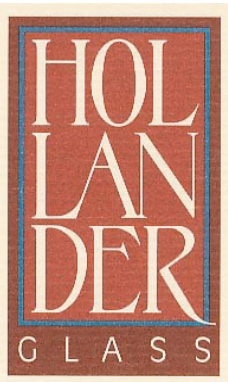
#### Polishing Schedule

Since there were large glass pieces used in this design, the casting had some glass spurs. The spurs were removed with a small grinder. The pieces were placed back in the same freshly-cleaned and primed mold, returned to the kiln, and fire polished using the following schedule (This fire polishing schedule differs only slightly from the casting schedule. The first segment's slower ramp is to prevent a stress fracture in the now solid glass):

|       |                                       |                  |
|-------|---------------------------------------|------------------|
| Seg.1 | 200°F (165°C) /hour to 1300°F (705°C) | Hold 10-20 min** |
| Seg.2 | AFAP*, no venting, to 960°F (515°C)   | Hold 90 min      |
| Seg.3 | 50°F (30°C) /hour to 800°F (425°C)    | No Hold          |
| Seg.4 | 100°F (60°C) /hour to 600°F (315°C)   | Off - No venting |

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## Project and Tip Sheet To Make Your Own Boxes

See the instructions below and learn how to make it!

### Colour Options - Frit Only For Making Additional Rectangular Glass Boxes

*Fall Amber Kit and Rich Amethyst Kit Instructions*

#### Get Creative!

These frit kits provide a stunning base for these boxes, but they can be further enhanced by tacking on other embellishments such as flowers, small creatures, or fun shapes like frit balls or rods softened in your kiln! See examples below.



Close-up shown to capture the richness of the amber colour.

#### Fall Amber Colour Option Includes:

| Description                      | Qty | Code          |
|----------------------------------|-----|---------------|
| 8.5oz jar medium pale amber frit | 2   | UR F3-1102-96 |
| 8.5oz jar medium clear frit      | 2   | UR F3-00-96   |
| Project sheet included           |     |               |

#### Order:

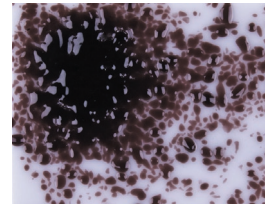
FUS KITFRITAMBER

#### Rich Amethyst Colour Option Includes:

| Description                       | Qty | Code         |
|-----------------------------------|-----|--------------|
| 8.5oz jar medium deep purple frit | 2   | UR F3-146-96 |
| 8.5oz jar medium clear frit       | 2   | UR F3-00-96  |
| Project sheet included            |     |              |

#### Order:

FUS KITFRITAMETHYST



UR F3-146-96  
Deep Purple

### Elegant Glass Box Instructions (Same for both kits)

#### Preparation

- If previously used, clean the molds and remove any signs of used kiln wash from previous firings (you can use a stiff, nylon brush).
- Apply five coats of Hotline Primo Primer, allowing each layer to dry before applying the next (you can use an old hairdryer to expedite this process; also Primo Primer's packaging calls for the primer to be pre-fired; however Colour de Verre has never found this necessary when using their molds).

#### Filling The Lid

- Use an inexpensive digital scale to weigh a clean mixing container (for the two types of frit), and tare (zero) it. Make a 50/50 mixture of the clear and coloured frit in your kit. The fill weight of the lid is 220 grams, therefore you need 110 grams of each.
- Mix it well, and add it to the lid, taking care to cover the bottom of the lid mold, and mound the remaining frit it into the centre.

#### Filling The Base

- Repeat the steps for the lid of the mold, except the new fill weight for the base is a total of 450 grams, therefore you will need 225 grams of each frit to make your 50/50 mixture.
- Mix it well, and add it to the base, taking care to cover the bottom of the the base mold, and mound the remaining frit it into the centre.

*Note that when casting with large frit, billets, or sheet glass, hot glass pieces drag down the mold's interior as they melt and compact. This action will cause glass spurs to develop on the piece's perimeter. Mounding the frit towards the molds' centre reduces glass spurs along casting's perimeter. If this mounding practice is followed and only fine frit is used, spurs are less likely to form at all and any cold work can be eliminated. See the casting and fire polishing schedules. Tacking schedule is also provided so you can decorate your box!*



Amber box with acorns and leaves.



Boxes with rods, stringer and frit ball accents.

#### COE96 Casting Schedule

The molds were fired at 1420°F degrees as follows:

|       |                                       |                  |
|-------|---------------------------------------|------------------|
| Seg.1 | 300°F (165°C) /hour to 1250°F (675°C) | Hold 30 min      |
| Seg.2 | 300°F (165°C) /hour to 1420°F/(770°C) | Hold 30-60 min** |
| Seg.3 | AFAP*, no venting, to 960°F (515°C)   | Hold 90 min      |
| Seg.4 | 50°F (30°C) /hour to 800°F (425°C)    | No Hold          |
| Seg.5 | 100°F (60°C) /hour to 600°F (315°C)   | Off - No venting |

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\*\*All kilns are different, therefore slight adjustments may need to be made in the hold times and/or temperatures.

#### COE96 Polishing Schedule

If there were large glass pieces used in this design, the casting had some glass spurs. The spurs were removed with a small grinder. The pieces were placed back in the same freshly-cleaned and primed mold, returned to the kiln, and fire polished using the following schedule (This fire polishing schedule differs only slightly from the casting schedule. The first segment's slower ramp is to prevent a stress fracture in the now solid glass):

|       |                                       |                  |
|-------|---------------------------------------|------------------|
| Seg.1 | 200°F (165°C) /hour to 1300°F (705°C) | Hold 10-20 min** |
| Seg.2 | AFAP*, no venting, to 960°F (515°C)   | Hold 90 min      |
| Seg.3 | 50°F (30°C) /hour to 800°F (425°C)    | No Hold          |
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#### COE96 Tacking Schedule

Used to add embellishments:

|       |  |                  |
|-------|--|------------------|
| Seg.1 | 200°F (165°C) /hour to 1250-1275°F (675-690°C) | Hold 5-10 min**  |
| Seg.2 | AFAP*, no venting, to 960°F (515°C)            | Hold 90 min      |
| Seg.3 | 50°F (30°C) /hour to 800°F (425°C)             | No Hold          |
| Seg.4 | 100°F (60°C) /hour to 600°F (315°C)            | Off - No venting |

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