COLOUR DeVERRE

REUSABLE MOLDS FOR GLASS CASTING



Poppy Plate

Rich, red poppies embellish this elegant serving plate. The plate itself is made from an understated collage glass that adds complexity and interest to the overall piece.

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This project can be completed over a few weekday evenings as it is easily broken into a series of manageable steps. None of these steps takes more than an hour or so to complete:

1. Make the poppies. The number of firings depends on the number of molds available and the number of poppies in the final design. It is always wise to make more than you imagine needing so you have more design options and flexiblity.

- 2. Fuse two pieces of sheet glass together to create the panel. We chose a collage glass, Mardi Gras, and a clear piece but there is no reason another type of glass could be used.
- 3. Slump the panel.
- 4. Tack the poppies to the panel. It is important to place the poppies so they complement the shape of the final piece.

Making the Poppies

Before each firing, clean your molds with a stiff nylon brush to remove any old kiln wash. (This can be skipped if the molds are brand new.)

Hotline Primo[™] primer is the only conventional primer we recommend because it doesn't obscure the mold's fine detail and is easy to remove after firing.

Give each mold cavity four *thin*, even coats of Hotline Primo Primer. Use a soft brush to apply the primer and a hair dryer to completely dry each coat before applying the next. The mold should be completely dry before filling.

Availability

Colour de Verre molds are available at fine glass retailers and many online merchants including our online store, www.colourdeverre.com.

Tools

- ✓ One or more Poppy and Small Mixed Flowers #1 molds
- \checkmark Small and Large artist's brush
- ✓ Large, lidded container for mixing frit
- \checkmark Digital scale
- ✓ Shallow slumping form

If you prefer, you can use boron nitride aerosol primer. (We used this for our project) We recommend ZYP BN Lubricoat (formerly MR-97) exclusively. You can read more about this in *Advanced Priming with Boron Nitride Aerosol* which can be found in our website's Learn section.

The poppies are cast from a mixture of fine Grenadine frit "cut" with fine Clear frit. After testing, the mixture we selected was 20% Grenadine and 80% Clear. The easiest way to do this is to put one measure (a tablespoon works great) of fine Grenadine frit and four measures of fine Clear frit into a large, lidded container. Put the lid on the large container and shake it to combine the two colors. When mixing frit, fine glass dust is created, so it is important to wear a dusk mask before opening the container.

Before adding the Grenadine mixture to the molds, use a small spoon to add about a gram of fine Black frit to each poppy mold. Make sure the Black frit settles into the blossom's center and the petal edges. The fine Black frit will highlight the designs' details and make the castings look more realistic.

Supplies

- ✓ Hotline Primo Primer or ZYP BN Lubricoat (formerly MR-97)
- ✓ Fine Grenadine, Black, and Clear frit
- ✓ Black on Clear Mardi Gras glass
- \checkmark Clear glass sheet

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Gently put the Grenadine mixture into the molds: 17 grams in the large poppy; 12 grams in the medium; and 8 in the small poppy of the Small Mixed Flowers #1 mold. If necessary use a brush or your finger tip to level the frit. One can also tap the mold's sides to make sure the frit is settled and level.

Fire the molds according the Component Casting Schedule.

The unusually low temperature is to produce thin, delicate castings. If the castings "ball up," decrease either the hold time or target temperature. Given the differences between individual kilns, it may take one or two test firings to get perfect results in your particular kiln.



After removing pieces from the kiln it is important to wash them thoroughly to remove all Primo primer or ZYP

Creating the Panel

Cut a 12x12" (30x30cm) square from Clear sheet glass. Cut a 12"x12" (30x30cm) square from the collage glass. If you wish, the squares' corners can be rounded with a power grinder. Protect the kiln shelf with primer or a piece of ThinFireTM shelf paper. Place the Clear glass on the shelf paper and place the collage glass on top with the collage elements face-down. Fire the two sheets according to the Sheet Glass Fusing Schedule below.

Slumping the Panel

Usually, we tack fuse the elements onto the panel and then slump the completed panel. In this project, that order has been reversed. The reason is that the slumping form has a sharp drop. To make the

Component Casting Schedule^{*}

SegmentRampTemperatureHold1300°F/165°C1300-1320°F/705-715°C30 to 60 minutes2AFAP960°F/515°C30 minutes. 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.

Sheet Glass Fusing Schedule*

Segment	Ramp	Temperature	Hold
1	300°F/165°C	1200°F/650°C	30 minutes
2	300°F/165°C	1400-1420°F/760-770°C	10 minutes
3	AFAP	960°F/515°C	60 minutes
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.

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glass panel fall into place, the panel has to be subjected to a relatively hot slump firing. That heat-work would distort the glass elements. So, we have chosen to reverse the steps

Place the panel on a primed slump mold. Slowly fire the piece according to the Slumping Schedule.

Attaching the Elements

Once the slumped panel has cooled, resist the temptation to remove the panel from the slumping surface. This way, the slumping mold won't have to be reprimed.



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Create a pleasing arrangement of poppies on the panel. Use small dabs of white glue to temporarily hold the components in place.



When dry, move the slumping form and the panel to a kiln shelf. Fire the piece according to the Tack Fuse Schedule. It is important not to rush the firing as there is quite a bit of thickness variation.

Variations

Consider using different color pallets or different collage and/or colored glass sheets to make the base. Further, consider using this same technique with other Colour de Verre designs.

Slumping Schedule*

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Segment	Ramp	Temperature	Hold			
1	300°F/165°C	1300-1320°F/705-715°C	5-10 minutes			
2	AFAP	960°F/515°C	60 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.

Tack Fuse Schedule*

Segment	Ramp	Temperature	Hold
1	250°F/135°C	1200°F/650°C	30 minutes
2	250°F/135°C	1250-1265°F/675-685°C	5-10 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.

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