Snowflakes

Our Snowflakes designs produce light and delicate snowflakes that celebrate the austere beauty of winter. They can be hung most anywhere and make the perfect "little gift" for friends and coworkers. If you want, you can tack fuse them to holiday plates and platters.

Our Snowflakes molds are exceptionally easy to fill and fire. The intricate design combined with a low temperature firing schedule produces castings so delicate that people will think they were produced via torch work.

Priming the Mold

Always start by priming your molds. There are two products you can use: Hotline Primo Primer™ and ZYP BN Lubricoat Aerosol (formerly MR-97).

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 three to four 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.

The first time ZYP is used on a mold, it is necessary to apply two coats of the product. Start by shaking the can until the ball inside the rattles. Continue shaking for at least 60 seconds longer. Hold the can upright 10 to 12 inches from the mold. Apply the first, light coat using a three-second burst of spray in a sweeping pattern across the mold's cavities. Do not saturate the surface. Set the mold aside for five minutes so it can dry. Once dry, apply a second coat using another 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 Mold

Different effects can be obtained by using different frit meshes (sizes) and amounts of heatwork - the combination of kiln temperature and hold time. For example, an extended amount of heatwork with fine or medium frit results in "icy" snowflakes. When fine frit and less heatwork are combined, the results are more "snowy" castings.

Caution: An excessive amount of heatwork causes the glass to become more fluid. In this state, the glass' surface tension will cause the

Availability

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

Tools

- ✓ Colour de Verre Snowflake molds
- ✓ Primer brush. Small artist brush.
- ✓ Small measuring spoons
- ✓ Digital scale

Supplies

- ✓ Hotline Primo Primer™ or ZYP BN Lubricoat Aerosol (formerly MR-97)
- ✓ Assorted fine and medium frits
- ✓ CBS Dichroic Frit Flakes

glass to "ball up" and the results will be less than perfect.

Fill Weights Table

Design	Frit Amount
Snowflakes '12	5 to 6 grams
Snowflakes '13	6 point, 9 grams 5 point, 6 grams
Snowflakes '14	8 grams
Snowflakes '15	20 grams
Snowflakes '16	25 to 30 grams

To fill the mold, measure out frit according to the Fill Weight Chart (A good starting point is to use fine Water Clear frit.) Place the frit in one of the cavities. Repeat this for the second cavity. Use a small artist's brush to level the frit. Don't be tempted to overfill the molds. There should be no frit above the design points in the cavity.

Place the mold in the kiln on an elevated shelf. Fire according to the "Snowy" Casting Schedule or the "Icy" Casting Schedule.

Snowflakes from the Snowflakes '16 design. This is the largest of the Snowflake designs

Oval Votive with Snowflakes '14 snowflakes

"Snowy" and "icy" fired snowflakes from the Snowflakes '15 mold

A bit of colored powdered frit at the tips really enhances the castings. These are Snowflake '12 and '13 castings

Mica powder is added to fine, Clear frit to created a metallic look. These are from the Snowflakes '14 design

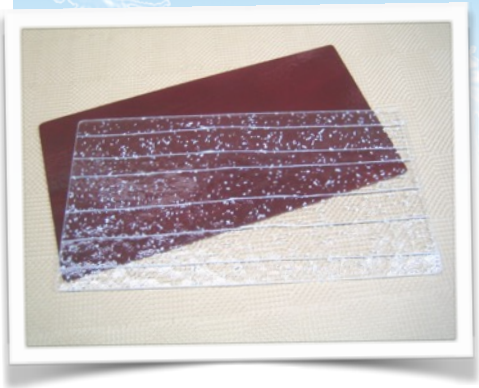
"Snowy" Casting Schedule*

Segment	Ramp	Temperature	Hold
1	300ºF/165ºC	1260-1280ºF/680-695ºC	5-10 minutes
2	AFAP	960ºF/515ºC	30 minutes. Off. No Venting

"Icy" Casting Schedule*

Segment	Ramp	Temperature	Hold
1	300ºF/165ºC	1300-1320ºF/705-715ºC	10-20 minutes
2	AFAP	960ºF/515ºC	30 minutes. Off. No Venting

* Schedule for COE 96. For COE 90, increase casting temperature by 15ºF/8ºC. AFAP means "As Fast As Possible", no venting.



Holiday Platters

Cut two pieces of glass to the same size. For our project, we chose a Black Cherry Opal and a White on Clear stringer and frit collage glass. Use a grinder to slightly round the corners. Stack the two sheets and place them on a kiln shelf protected with either kiln wash or firing paper. Move the shelf to the kiln and fire according to the Panel Fuse Schedule.

After the kiln cools, move the now fused panel to the workbench. Arrange snowflakes on the panel. For our project we used icy fired snowflakes cast in fine White. Use small dabs of white glue to hold the snowflakes in place. Move the panel and snowflakes back to the kiln shelf and fire according to the Snowflake Tack Fuse Schedule.

Once the kiln has cooled, remove the panel and check to see that all the snowflakes are securely attached. Place the panel on a prepared slumping surface and fire according to the Slump Firing Schedule.

Variations

The snowflakes can be given extra sparkle with the addition of iridized clear frit, dichroic frit, or dichroic flakes. (Dichroic frits and flakes are manufactured by CBS Coatings by Sandberg. Visit their website, www.cbs-dichroic.com, for more information.

Best results are achieved by "sandwiching" the dichroic frit and flakes between two layers of any colored or Clear fine transparent frit. After filling the molds, fire as usual.

Another product that produces wonderful results is CBS's Dichroic Coated Copper Foil, a product designed for flame working artists.

To use this product, simply peel a small amount of the dichroic coating from the copper foil and rub it through a fine strainer to break into small pieces. Again, "sandwich" the flakes between two layers of any colored or Clear fine transparent frit. Fire as usual.

Panel Fuse Schedule*

Segment	Ramp	Temperature	Hold
1	300ºF/165ºC	1250ºF/675ºC	30 minutes
2	300ºF/165ºC	1420ºF/770ºC	10 minutes
3	AFAP	960ºF/515ºC	60 minutes
4	100ºF/55ºC	600ºF/315ºC	Off. No venting

Snowflake Tack Fuse Schedule*

Segment	Ramp	Temperature	Hold
1	250ºF/140ºC	1200ºF/650ºC	30 minutes
2	250ºF/140ºC	1275-1300ºF/690-705ºC	10 minutes
3	AFAP	960ºF/515ºC	60 minutes
4	100ºF/55ºC	600ºF/315ºC	Off. No venting

Slump Firing Schedule*

Segment	Ramp	Temperature	Hold
1	200ºF/110ºC	1200ºF/650ºC	10 minutes
2	AFAP	960ºF/515ºC	60 minutes
3	100ºF/55ºC	600ºF/315ºC	Off. No venting

* Schedule for COE 96. For COE 90, increase casting temperature by 15ºF/8ºC. AFAP means "As Fast As Possible", no venting.