



### Pine Cone and Needle Candle Chimney

*This makes a superb centerpiece for a holiday table or festive, winter mantle accent.*



There are three steps to completing this project:

- Create a collection of pine cones and needles. A great technique is to make more elements than you believe you will ultimately need. That way you can experiment with a variety of layouts and arrangements. If you have only one mold, this process may take multiple firings as the pine cone are on one side of the mold and the needles are on the second.
- Tack fuse the pine cones and needles to two glass sheets.

- Shape the panels over Colour de Verre 5" Round Panel Form.

### Creating the Pine Cones and Needles

Always start the same way: Clean your mold with a stiff nylon brush to remove any old kiln wash. (The step can be skipped if the mold is brand new.) Next, give the mold four to five thin, even 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 doesn't obscure the mold's fine detail, always releases, and is easy to remove after firing.

Apply the Primo Primer™ with a 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.



For pine cones: There are four pine cones in every mold that hold 12, 18, 23, and 30 grams of frit. Weigh the primed mold and record its weight. The filled mold will weigh 83 grams more than the empty mold.

Create a mixture that is one part fine Medium Amber and three parts fine Pale Amber. Place the mold on the scale and evenly add the frit mixture until the scale registers 83 grams more than the empty mold did. Use a small paint brush if you want to distribute the frit evenly.

Fire according to the table below:

### Pine Cone Casting Schedule

Seg 1 300°F (150°C)/hour to 1350-1375°F (730-750°C), Hold 10 minutes

Seg 2 Off, cool kiln, no venting

\* For COE 90, increase 25°F (15°C)

For the needles: Use fine Medium Amber to fill each stem. Use a small paint brush to move any stray frit into place. Sprinkle enough fine Dark Green frit into each cluster to just barely cover the bottom of the mold. Tap the

### 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 5" Round Panel Former and Pine Cone and Needles mold
- ✓ Small primer brush
- ✓ Small containers for mixing frit
- ✓ Digital scale

### Supplies

- ✓ Hotline Primo Primer™
- ✓ Assorted frits
- ✓ Clear, textured sheet glass
- ✓ 1/16" kiln paper
- ✓ Adhesive and masking tape

mold so the Dark Green frit settles into the needle grooves.

Weigh out 15 grams of fine Water Clear frit and distribute this evenly across the three designs. (We often refer to the process as “backfilling.”)

Fire using the Needle Casting firing schedule below:

### Needle Casting Schedule

Seg 1 300°F (150°C)/hour to 1325-1350°F (715-730°C), Hold 10 minutes

Seg 2 Off, cool kiln, no venting

\* For COE 90, increase 25°F (15°C)

The low temperatures of this firing schedule are designed to keep the frit from “balling up” from the glass’ surface tension.

Again, if you have only one mold, you will have to complete multiple firings.

### Creating the Panels

Starting by cutting two identically sized pieces of clear, textured, single thickness sheet glass 7½” (19cm) wide and 5½” (14cm) tall. Collage the pine cones and needles into a pleasing design and, if desired, lightly glue them into place with a few drops of Aleene’s Tacky Glue.



Tack fire the panels using this schedule:

### COE 96\* Tack Schedule

Seg 1 200°F/hour to 1150°F (620°C), Hold 30 minutes

Seg 2 AFAP to 1260°F (680°C), Hold 10 Minutes

Seg 3 AFAP to 960°F (515°C), Hold 60 Minutes, No Venting

Seg 4 40°F (22°C)/hour to 700°F (370°C)

Seg 5 60°F (35°C)/hour to 400°F (200°C), Off, No Venting

\* Increase 25°F (15°C) for COE 90

### Forming the Panels

Remove the cooled panels from the kiln and make sure all the elements are securely bonded to the clear sheet glass.

The panels are next slumped over the 5” Diameter Panel Former. If you have lost the detailed instructions that are included with each former, you can find a copy at

[www.colourdeverre.com](http://www.colourdeverre.com).

Two things that can’t be stressed enough:

- Don’t rush the slump firing. With the addition of the pine cones and needles, there is quite a variation in the panels’ thicknesses. The panels require a slow ramp and cool down to avoid thermal shock.
- Cover the 5” Round Panel Former with a piece 1/16” kiln paper, cut a 8” by 8” (20 cm by 20 cm). Use a bit of Aleene’s Tacky Glue to hold the paper in place.

Use a ruler to find the midpoint of the 7½” edges of the glass panel. Mark these two points. At each end of the mold, at the upper most point of the curve, are two small arrows. Use a ruler and marker to draw a line on the fiber paper between the two arrows. Use this line and the marks on the glass to center the glass panel. Check to make sure the panel is perfectly centered and that the top and bottom edges are parallel to the mold’s ends.

Place three short kiln posts (or two longer kiln posts laid on their sides) on the kiln shelf. These elevate the mold above the kiln shelf so that heat can circulate completely around it.

Pick up the mold and glass by inserting your fingers into the mold’s handles and using your thumbs to hold the glass and kiln paper in

place. Transfer the mold into the kiln.



Fire using this schedule:

### Forming Schedule\*

Seg 1 100°F (55°C)/hour to 1200°F (650°C). Hold 5 minutes

Seg 2 AFAP to 960°F (515°C) without venting. Hold 2 - 3 hours.

Seg 3 30°F (15°C)/hour to 700°F (370°C)

Seg 5 60°F (35°C)/hour to 400°F (220°C). Off. Cool kiln without venting

\* Increase 25°F (15°C) for COE 90

Remove the formed panels from kiln. Form a cylinder with the two panels. Tape together with masking tape. Secure the two panel together with a few dabs of E-6000® (or similar) adhesive.

### Variations

The project can be modified in a number of ways to create a customized piece:

- Use Colour de Verre's Blossoms, Branches, and Small Leaves molds to create a spring theme candle chimney.
- Outline the panels with glass noodles to frame the piece.
- Use tinted sheet glass rather than clear glass.
- Embellish the clear glass with stringers and frit.
- Create a snow-like background. Once the pine cones and needles are glued in place, entirely cover each clear glass with medium, clear frit or iridized clear frit and tack fire as directed.

