Nautilus Hi-Lo Bowl

In this tutorial you will learn how to make this beautiful Nautilus Hi-Lo Bowl using the Creative Paradise, Inc mould CPGM274 by Susie Donaldson.

You will need to following to create this project:

- Creative Paradise, Inc. mould - CPGM274
- Sheet of clear COE96 glass and scraps
- Powder sifter
- Aventurine blue powder frit
- Clear powder frit
- Ring saw or grinder with small bit
- Vaseline
- Marker

TOP TIP

Make sure you use a glass separator on your casting mould

It is crucial that you coat your mould with a glass separator so that the glass won't stick to the mould once it is fired. If you don't apply enough glass separator your glass will get stuck or pull out some of the mould. We would recommend using ZYP (Boron Nitride Spray), this comes in a can which can be sprayed easily - spray several light coats in intervals, turning the mould to make sure you coat all the surfaces. Make sure you also wear a mask to avoid breathing in the spray.

TOP TIP

Keep your mould edges clean

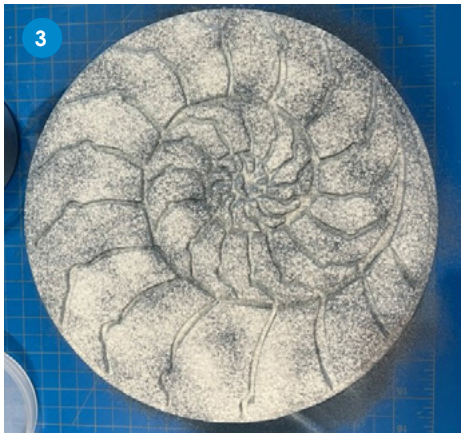
Once you have added your frit make sure that you sweep away any loose frit from the edges of the mould, this will prevent burrs from occuring and will ensure that your shape has a smooth edge. Use a powder sifter when using your powdered frit to allow you to easily add fine detail.

TOP TIP

Removing the casting from the mould

When your piece has finished fusing and has cooled down, remove it from the mould by gently turning the mould over and letting it fall out onto a soft surface. DO NOT pick the piece out of the mould as you may break the post off.

The process



1 Cut a circle and trace the pattern

Cut one 9 5/8" circle from the sheet of Clear COE96 Glass. Grind and clean the edges well, as they will become the bowl rim when finished. For a wider rim, the circle can be made up to 10.5", which can also fit the larger Hi-Lo.

Trace the pattern on Pages 3 and 4 onto additional Clear COE96 Sheet Glass. Number each piece with a marker as you cut. It is important to cut each piece with a consistent gap in between so the eventual powder lines come out uniformly.

2 Cut the individual pieces

The above picture shows a roughly cut piece before refining at the ring saw or with a grinder. Before taking each traced piece to the ring saw, cover the markings with Vaseline to preserve them during the grinding process.

After cutting and grinding, clean each piece well, especially the edges. It is easiest to thoroughly clean the base piece, lay it atop the pattern, then grind and clean each piece before placing on top of the base piece. A small amount of hair spray or glue can keep pieces in place.

3 Start to add the powdered frit

After all pieces are on the base, elevate the piece and begin sifting the Aventurine Blue Powder Frit. The centermost chamber of the shell is a good place to start, as you can then work your way outwards. Sifting more heavily along the outer ridges of the pieces can help create a contrast.

Be sure to sift a little along the outermost rim of the piece as well.

Add a layer of the Clear Powder Frit, and top off with more Adventurine Blue, especially along the darker edges.

The process - cont.

4 **Fire your project**

Fire according to the schedule found in Table 1.

Allow the piece to cool before using the schedule found in Table 2 to slump onto the Hi-Lo Mold.

Remember to adjust firing schedules as necessary to best fit your own kiln

Fusing program - full fuse

Segment	Rate Celsius/hr	Temp	Hold time (hr:min)
1.	167°C/hr	to 593°C	1:00
2.	111°C/hr	to 676°C	1:00
3.	AFAP* OR 9999°C/hr	to 804°C**	0:10
4.	AFAP* OR 9999°C/hr	to 482°C	2:00
5.	56°C/hr	to 371°C	0:00
6.	83°C/hr	to 21°C	0:00

Fusing program - slump

Segment	Rate Celsius/hr	Temp	Hold time (hr:min)
1.	139°C/hr	to 315°C	0:20
2.	153°C/hr	to 676°C	0:20
3.	AFAP* OR 9999°C/hr	to482°C	1:30

*AFAP = as fast as possible, some controllers will not allow a rate of 9999°C /hr
** Will vary depending on desired result and kiln

This data is a guide only, firing programmes may need to be adjusted according to size and thickness of glass and the kiln's performance. Ensure that data is entered into the controller accurately, otherwise glass may not fuse correctly.

Pattern

To print this pattern to fit a 9.5" circle of glass, print Pages 4 and 5 of this tutorial at "Actual Size" then tape together.

Pattern