





# Make your own oval Koi fish bowl

Make a stunning koi fish bowl using the Koi casting mould and small oval dam mould. Traditionally, frit castings have been added to the surface of a glass project. In this project we use frit castings as inclusions inside a glass project to create a whimsical oval shaped bowl featuring two delicate Koi fish.

The following instructions enable you to make a sunflower bird feeder using the Koi Casting Mould (CPLF146), Small Oval Dam Mould (CPGM236) and Small Oval Shelf Ring (CPGM234).

#### You will need to following to create this project:

- Creative Paradise, Inc. moulds CPLF146 & CPGM236 & CPGM234
- Powder sifter
- 7YP

- COE96 Frits in F1 Powder & F3 Medium
- Mosaic nipper
- COE96 coloured sheet glass
- Kiln paper



### Ensure your mould is well primed before use

By using a primer this will prevent the glass sticking to the mould and potentially damaging the mould and the glass, make sure you use a small brush for detailed areas and dry thoroughly.

Creative Paradise highly recommend using ZYP a Boron Nitride spray due to the high temperatures required, this easy to apply spray can fire up to 982°C. Several light coats with a short waiting period of around 15 minutes between coats is preferable to one heavy coat. Shake the can well before use and hold the can upright while using to assure proper distribution of product. You will need to apply one light coat each time you fire.



## The process - Koi castings











1 Create the detail

Use a frit sifter, powder vibe or pipette to place powdered Black Opal frit in the fins, lips and eyes of each koi. Place powdered Flame Opal at the top of the head and here and there in the Koi cavities.

2 Fill the cavities with frit

Place powdered or fine frit in bright Orange and Yellow Hues such as Orange Opal or Orange Transparent and Yellow Opal or Marigold here and there in the Koi cavities.

Place fine Transparent Amber here and there in select sections of the Koi to suit your own artistic preferences.

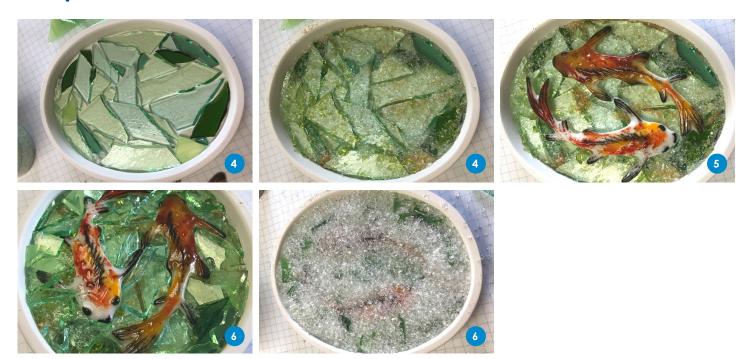
3 Fill the fish bodies

Fill the cavities with fine White Opal until the cavities hold between 1/4" and 3/8" of frit. Fire the mould with the glass using the firing schedule found in the table overleaf.

Allow the kiln to cool. The back of the castings (up in the mould) will be slightly textural because they were fired using the schedule in the table overleaf which does not fire to a full fuse. If fired to a full fuse, the glass will roll back significantly because more glass must be added to the cavities to create thick full fuse castings. Use soap and water and a scrub brush to remove any excess glass separator from the top of the castings.



## The process - Dam mould



4 Fill the dam with scrap glass of your choice

Use a mosaic nipper to fill the bottom of the oval dam with pieces of Ming Green, Citron, Sea Green or other transparent green colors. There will be small gaps here and there between the nipped glass pieces.

Fill the gaps and crevices between the nipped glass pieces with medium and/or fine Citron, Ming Green and Amber frit.

5 Place the fish

Arrange two of the Koi in the dam over the first glass layer.

6 Continue to fill the dam

Use a mosaic nipper to create small pieces of Ming Green, Citron, Sea Green, and/or other pieces of glass to fill the dam around the Koi frit castings.

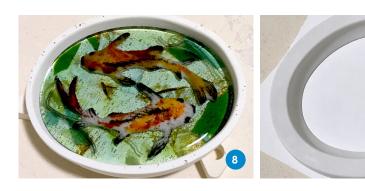
Add medium grain Clear frit over all of the glass and frit castings filling the dam mould with 280 grams of glass. Make sure that the frit castings have a thing layer of clear frit over them to assure a smooth glossy fuse.

7 Fire the dam

Place the dam filled with glass on 1" kiln posts on a kiln shelf and fire using the firing schedule found in the table overleaf.



# The process - Shelf ring mould



#### 8 Remove the fused glass from the dam and fire

Place the Oval Shelf ring onto a piece of kiln shelf paper. Center the fused glass over the ring on the shelf and fire using the firing schedule found overleaf.



Slumped to 704°C

Slumped to 676°C



#### Koi casting mould firing schedule

Segment	Rate Celsius/hr	Temp	Hold time (hr:min)
1.	166°C/hr	to 621°C	0:20
2.	194°C/hr	to 760°C	0:05
3.	AFAP* OR 9999°C/hr	to 510°C**	1:00

#### Dam mould firing schedule

Segment	Rate Celsius/hr	Temp	Hold time (hr:min)
1.	166°C/hr	to 621°C	1:00
2.	27°C/hr	to 710°C	0:30
3.	194°C/hr	to 796°C**	0:10
4.	AFAP* OR 9999°C/hr	to 510°C	1:30
5.	55°C/hr	to 371°C	0:05

#### Shelf ring mould firing schedule

Segment	Rate Celsius/hr	Temp	Hold time (hr:min)
1.	152°C/hr	to 621°C	0:20
2.	194°C/hr	to 676°C***	0:05
3.	AFAP* OR 9999°C/hr	to 510°C	1:30
4.	55°C/hr	to 371°C	0:05

<sup>\*</sup>AFAP = as fast as possible, some controllers will not allow a rate of 9999°C /hr

#### Note:

This data is a guide only, firing programs 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 or paint will not fire onto the glass as desired. Creative Glass Guild sells all glass, tools and materials on the basis that customers have the knowledge and ability to use them safely and in accordance with all relevant regulations and legislation.

<sup>\*\*</sup> Will vary depending on desired result and kiln

<sup>\*\*\*</sup> To create a more severely angled piece of glass from this slumping process, increase the temp in segment two to 704°C