

# Frit-Cast Butterflies



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6

## Materials:

- [LF107 Swallowtail Butterfly](#)
- COE96 Frits (See Right)
- Suitable Glass Separator/ZYP
- Frit Placement Tools
- 18-Gauge Bare Copper Wire

### F1 Powder Frits:

- Cobalt Transparent
- Deep Aqua
- Yellow Opal

### F3 Medium Frits:

- Pastel Green
- Clear

### F2 Fine Frits:

- Chestnut Opal
- Yellow Transparent
- Moss Green Transparent
- Dark Amber Transparent

Before beginning, make sure to treat your mold thoroughly with glass separator. We recommend spray-on ZYP. For a video tutorial on how we use it to treat our molds, [please click here](#). And make sure to always wear a mask when using spray-on separator and/or powder frits!



## General Note:

These butterflies can be created in different thicknesses for different projects. While the full fill weight for a full fuse is around 85 grams, you can fill them as light as 43 grams and take them to a lower temperature for thinner finished pieces. If creating thinner pieces, it is better to use smaller grains of frit as larger grains will remain textured at lower temperatures.

## Green Butterfly Process:

After treating the mold, carefully place F1 Cobalt in the wing markings and lower area of the body (**Fig. 2**). Fill the remainder of the body with F2 Chestnut Opal and gently sift or otherwise place F1 Deep Aqua along the edges of the wings (**Fig. 3**).

Cover the entire butterfly with a light coat of F1 Yellow Opal (**Fig. 4**). Add F2 Yellow Transparent to the area of the wings closest to the body and F2 Moss Green to the outside edge of the wings. Place a small amount of F2 Dark Amber over the Moss Green in the lower sections of the wings, top tips of the wings, and onto the body. Allow a small amount of the Dark Amber to spill over into the Yellow next to the body (**Fig. 5**).

Back everything with a layer of F3 Pastel Green (**Fig. 6**) before finishing with F3 Clear (**Fig. 7**). If using fill weights, add the clear until the desired weight is achieved (ranging from 43-85 grams). Gently sweep the frit back from the edges of the mold and mound it towards the middle to avoid burrs and sticking.

For the antennae, cut two 5" pieces of 18-gauge bare copper wire. Bend the top 1/4" of each at a right angle and place the tip of that angle into the frit at the top of the butterfly's body (**Fig. 8**). If creating a thinner piece, make sure there is still enough frit to hold the antennae in place.

Once the mold is filled and given antennae (if desired), place it into the kiln and fire to a Full Fuse using the suggested schedule in **Table 1** on Page 2 or your own preferred Full Fuse with a bubble squeeze.

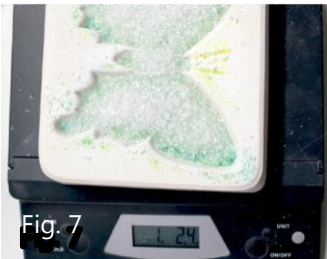


Fig. 7

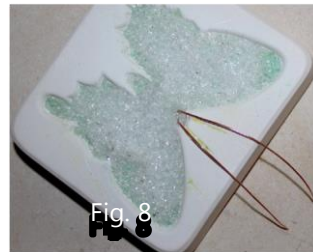


Fig. 8

# Display and Design Ideas:

Table 1: Full Fuse\*

Segment	Rate	Temp (°F)	Hold
1	300	1150	45
2	150	1300	20
3	400	1460 (85g) 1400 (43g)	10 (85g) 05 (43g)
4	9999	950**	5

\*\*If using COE90, adjust this to 900°F

\*Before firing, [check our Important Firing Notes by clicking here](#) to get to know your kiln and see if you need to adjust our schedules!

There are many ways to display your butterflies once they're fused and cooled! You can glue an alligator clip to the back and clip the butterfly into arrangements or onto wires or tubes. Thinner butterflies can even be tack fired onto other glass projects (but to retain their texture, don't exceed 1300°F).



These butterflies were made with pieces of clear dichroic glass fired dichroic side down with various other compatible frit colors in front of and behind them.



Uroboros Metallic Irid on Clear F7 Mosaic frit placed iridized side down and backed with various jewel-toned frit colors.



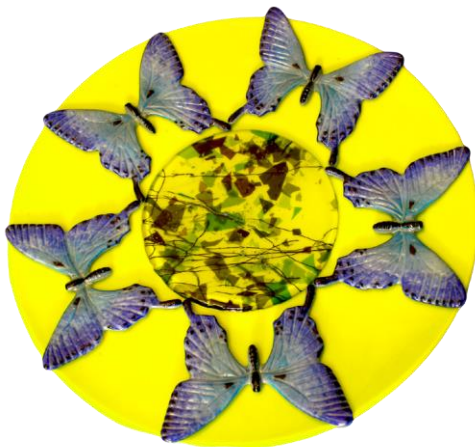
F1 Deep Aqua, F2 Plum, and F2 Black backed with F3 White



F2 Black Opal, F2 Dark Amber, and F2 Medium Amber backed with F3 Yellow Opal



F1 Orange, F1 Black, and a few pieces of dichroic glass backed with F3 Yellow Opal



Very thin butterflies made using only fine and powdered frit that have been tack fired to a pre-fused 13" diameter blank.



These butterflies have been glued to springs on copper tubes to give them some motion and allow for display in the garden or flower pots.

