## FRIT SLURRYS!

Here, at Creative Paradise Inc, we have been playing around with different ways to use frit on glass. We have come up with a cool and unique way to blend frit colors, and all it involves is a splash of water <u>powdered</u> frit! In the following tutorials we will show you how we made all the fun and interesting color patterns and mixes in the samples pictured. It can be a messy process but the unique results speak for them selves!

<u>Materials used:</u> COE96 8.5" x 8.5" Double Thick Clear Sheet Glass All COE96 Frits: F1 Powder Black Opaque F1 Powder Deep Purple Transparent F1 Powder Bronze Transparent F1 Powder Turns Pink Striker Transparent F1 Powder Medium Amber Transparent F1 Powder Medium Amber Transparent F1 Powder Transparent Orange Water and a spray bottle of water Paper Towels Paper Cups/ small Mixing bowls Plastic knife, Spoon ZYP/Boron Nitride Glass Separator Spray <u>CPI GM142 Mold</u>

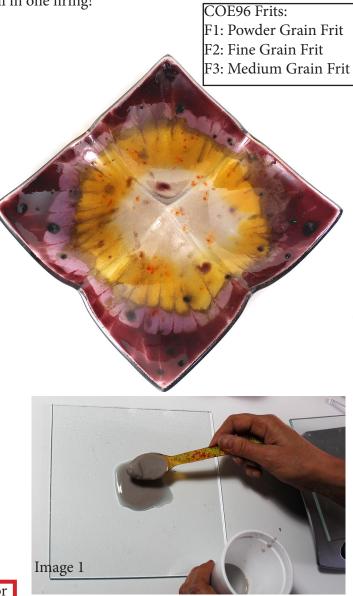
Click here for a tutorial on applying the ZYP.

Step 1. Cut a 8.25" x 8.25" square out of COE96 Transparent Glass. Clean the square of glass with glass cleaner before you begin to use it.

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How to make the frit slurry mix: Put the desired color of powder frit you want into a paper cup (or other mixing container) and add a splash of water. The estimated ratio is 2:1 frit to water. Mix with a spoon until you have a pancake batter like consistency. <u>This</u> is how you will make all of the frit slurry's. Don't mix different color frits together in the same cup- you will need a clean or separate cup for each water and frit <u>mix.</u>

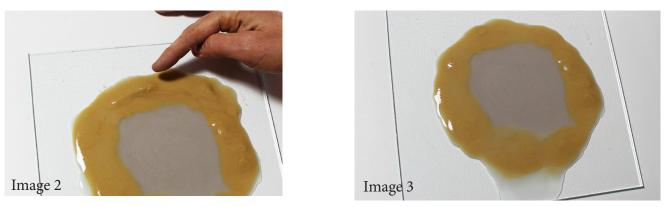
For the first project, we blended our frit slurry's on a square of Double Thick Clear COE96 sheet glass, and then slumped it on our GM 142 Quad Swoop Slumpall in one firing!



Step 2. \*Create a Bronze frit slurry. With a spoon, place some of the mixture into the middle of the square. Spread the Bronze slurry to create a 4" dia. area in the center of the square You will notice the water trying to separate from the frit. Shake the glass square slightly to get the frit

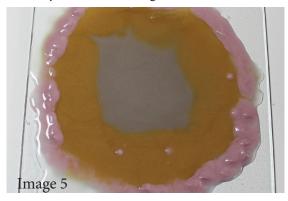
slurry to evenly distribute 10n the glass.





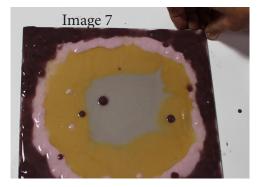
Step 3. \*Create a Med. Amber frit slurry and use a spoon to place it all around the Bronze slurry on the glass. You may notice some places where the frit is clumping (image 2). Just shake the glass square gently and carefully and it should settle down evenly as seen in image 3.





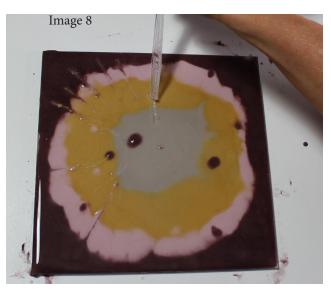
Step 4. \*Create a Turns Pink frit slurry. With a spoon place it all around the outside of the Amber slurry on the glass. Shake the glass square gently to evenly distribute. When scooping the slurring onto the glass, blobs of frit slurry may fall into places it "shouldn't be" (image 5), but it will add to the finished piece!





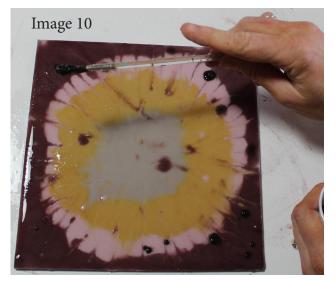
Step 5. Create a Deep Purple frit slurry and spread it all around the outside of the Turns Pink Slurry on the glass. As you can see in image 6, some Deep Purple dropped into the Amber circle, but again it just adds to the finished piece! Shake the glass square gently so that all the frit slurry's blend into each other a bit (image 7).

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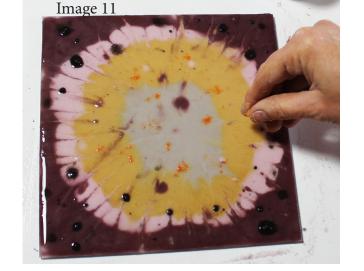
Step 6. Using a plastic knife or other tool and drag some of the Deep Purple into the Turns Pink and into the Medium Amber (image 8). Continue to blend and drag to suit your own artistic preferences. This creates unique ripples and frit color movements in the glass when it is fired. If needed use a spray bottle with water and spray some water onto your piece to create a smooth blend of frit colors (image 9).



Step 7. \*Create a Black frit slurry and drop and/ or flick spots of the Black here and there into the other colors on the glass (image 10).



Above is the frit slurry placed on the GM142 in the kiln- about to be fired!



Step 8. Sprinkle dry F1 Orange into small mounds onto the wet frit (image 11).

When you are happy with your design lift it up carefully and with a paper towel wipe off the edges of the glass. Put your glass piece into a dry safe place for a few hours so it can dry completely before you fire it on the GM142.

When the slurry is dry the frit will be loose and care should be taken when moving the glass. Spray the mold with ZYP/Boron Nitride Spray. Place the glass on the GM142 in the kiln and fire the schedule in table 1 on page 9. This firing schedule was designed to fuse and slump the

glass in one firing.

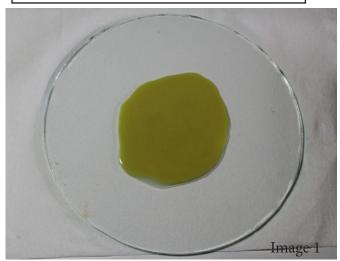
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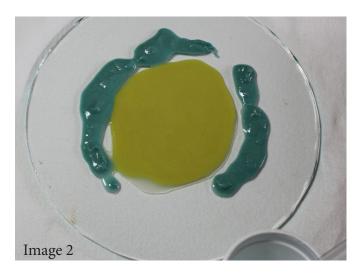


Materials Used Double Thick Clear Sheet Glass COE96 All COE96 Frits: F1 Powder Black Opaque F1 Powder Yellow Transparent F1 Powder Teal Green Transparent F1 Powder Deep Aqua Transparent F1 Powder Cobalt Blue F2 Flame Red Opal F3 Yellow Opal Water and a spray bottle of water Paper Towels Paper Cups/ small Mixing bowls Plastic knife, Spoon ZYP/Boron Nitride Glass Separator Spray CPI Mold GM88 Click here for a tutorial on applying the ZYP.



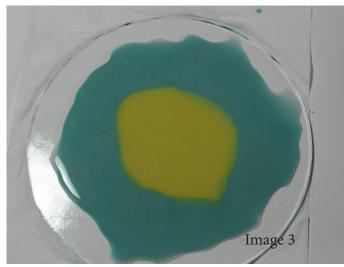
Step 1. Cut a 10" dia circle out of Double Thick Clear sheet glass. Clean the glass. \*Create a frit slurry with F1 Yellow frit. Place some of that mixture in the middle of the circle. Shake the glass circle gently 4 to evenly distribute the mix.

How to make the frit slurry mix: Put the desired color of powder frit you want into a paper cup (or other mixing container) and add a splash of water. The estimated ratio is 2:1 frit to water. Mix with a spoon until you have a pancake batter like consistency. <u>This</u> is how you will make all of the frit slurry's. Don't mix different color frits together in the same cup- you will need a clean or separate cup for each water and frit mix.



Step 2. \*Create a Teal Green frit slurry. Using a spoon or other tool dab the mixture around the Yellow circle on the glass. You will notice from Image 2 that the mix can be clumpy. That is OK. Gently shake the glass circle to evenly distribute the mix as seen in image 3.



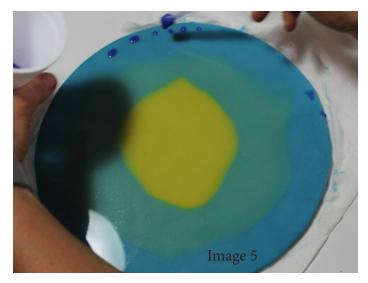


If you are making your Frit Slurry on an uneven surface you will notice the water trying to trickle to one side as seen in image 3, because the glass is not level. To avoid this work on a level surface or just keep turning the glass circle as you work on it.

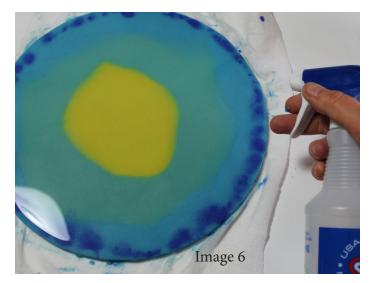


Step 3. \*Create a Deep Aqua frit slurry and dab it around the edges of the Teal Green circle out to the edge of the glass with a spoon or other tool.

## Click here for a short and sweet clip that shows some of the steps you see here!



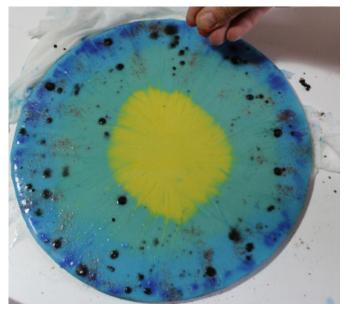
Step 4. \*Create a small amount of Cobalt Blue frit slurry and with a paint brush or a plastic knife (or other tool) place small dabs of the Cobalt into the Deep Aqua slurry here and there along rim of the circle.



Step 5. To blend the Cobalt Blue into the Deep Aqua, spritz the area gently with water.



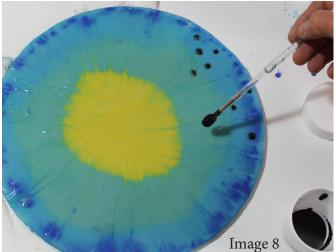
Step 6. Use a plastic knife or other tool to drag the colors back and forth into each other to suit your own artistic preferences.



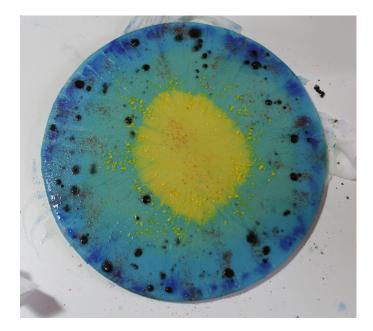
Step 8. Sprinkle some dry F2 Flame Red and F3 Yellow onto the wet frit.



Above is the frit slurry placed on the GM88 in the kiln- about to be fired!



Step 7. \*Create a Black frit slurry and drop and/or flick spots of the Black here and there into the other colors on the glass (image 8).



When you are happy with your design lift it up carefully and with a paper towel wipe off the edges of the glass. Put your glass piece into a dry safe place for a few hours so it can dry completely before you fire it on the GM88.

When the slurry is dry the frit will be loose and care should be taken when moving the glass. Spray the mold with ZYP/Boron Nitride Spray. Place the glass on the GM88 in the kiln and fire the schedule in table 1 on page 9. This firing schedule was designed to fuse and slump the glass in one firing.

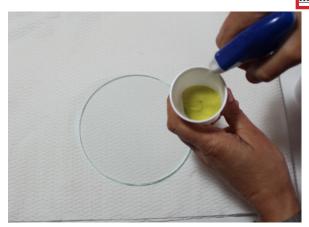


## Create this pretty flower Frit Slurry on

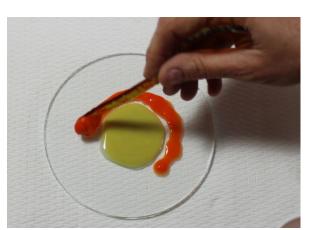


Materials Used Double Thick Clear Sheet Glass COE96 All COE96 Frits: F1 Powder Black Opaque F1 Powder Yellow Transparent F1 Powder Orange Transparent F1 Powder Grenadine Red Transparent F2 Orange Opal F3 Marigold Opaque Water and a spray bottle of water Paper Towels Paper Cups/ small Mixing bowls Plastic knife, Spoon ZYP/Boron Nitride Glass Separator Spray CPI Mold GM48

<u>Click here for a tutorial on applying the ZYP.</u>



Step 1. Cut a 6" dia circle out of Double Thick Clear sheet glass. Clean the glass. \*Create a frit slurry with F1 Yellow frit.



Step 3. \*Create an Orange frit slurry. Using a spoon or other tool dab it around the outside of the Yellow frit slurry on the glass. 7



How to make the frit slurry mix: Put the desired color of powder frit you want into a paper cup (or other mixing container) and add a splash of water. The estimated ratio is 2:1 frit to water. Mix with a spoon until you have a pancake batter like consistency. <u>This</u> is how you will make all of the frit slurry's. Don't mix different color frits together in the same cup- you will need a clean or separate cup for each water and frit mix.



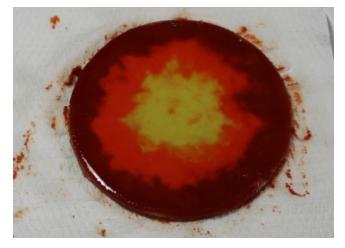
Step 2. Using a spoon or other tool put some of the Yellow frit slurry onto the middle of the circle. Shake the glass circle gently to get the yellow circle to evenly spread out.



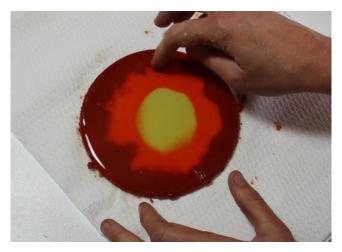
Step 4. \*Create a Grenadine Red frit slurry. Using a spoon or other tool dab the Red frit slurry all around the outside of the Orange slurry on the glass.



Step 5. Shake the glass circle gently so that frit mixes blend together at their edges and distribute evenly.



The image above illustrates what the frit slurries might look like when blended together a bit using your finger.



Step 6 is optional. Use your fingers if you want to blend the firt mixes into one another more dramatically.



Step 7. Create a bit of Black frit slurry. Using a paint brush dab/flick the black frit mix into the center of the Yellow slurry on the glass.



Step 9. Create an Orange Opal Frit slurry. Drop small mounds of the Orange Opal slurry here and there into the Grenadine Red and Orange transparent frit slurry areas.



Step 8. Sprinkle some dry F3 Marigold into the center of the Yellow circle.





Step 10. Carefuly lift up your piece and wipe around the edges with a paper towel.

Table 1 Fuse and Slump in One Firing			
Segment	Rate	Temp in F	Hold in mins
1	200	190	30
2	200	550	10
3	275	1215	45
4	350	1400	03
5	9000	950	60
6	100	500	0

When you are happy with your design lift it up carefully and with a paper towel wipe off the edges of the glass. Put your glass piece into a dry safe place for a few hours so it can dry completely before you fire it on the GM48.

When the slurry is dry the frit will be loose and care should be taken when moving the glass. Spray the mold with ZYP/ Boron Nitride Spray. Place the glass on the GM48 in the kiln and fire the schedule in table 1 on page 9. This firing schedule was designed to fuse and slump the glass in one firing.



Above is the frit slurry placed on the GM48 in the kiln- about to be fired!

\*Before you fire in your kiln please click here to read our important firing notes.



Add life to your frit slurry flowers by adding stems! Use a diamond coated drill bit to drill holes in the center of the flowers. The hole should be large enough for a #6 or #8 screw to go through. Cut the desired length of copper tube with a pipe cutter. If you use a #8 screw, the flange created by the pipe cutter should act as a thread for the #8 screw. Place a rubber washer between the copper tube and the glass and put the #8 screw through the hole in the front of the flower into the copper tube and tighten. And alternative method would be to place a #4 ribbed plastic anchor into the copper tube. The flange created by the pipe cutter will have to be eliminated by "wallowing" out the end of the copper tube with a thin screw driver for the plastic anchor to fit into the tube. Place the #6 screw through the front of the flower into the plastic anchor and tighten.

## Other Frit Slurry Examples

These two samples were made using the same techniques as described in this tutorial.



COE96 8.5" x 8.5" Double Thick Clear Sheet Glass

F1 Black Opaque F1 Deep Purple Transparent F1 Bronze Transparent F1 Turns Pink Striker Transparent F1 Medium Amber Transparent F2 Transparent Orange Slump on GM88 using the firing schedule in table 1.

> Top Tips - Do your frit flurry piece on a paper towel. The project gets very messy.

-Use powder frits to make the frit slurry's.

-Use a paper towel to clean the edges of the mold which may have stray bits of frit or drippage on them.

-Remember that if frit strays or gets somewhere you don't want it to then it was just meant to be! COE96 Frits: F1: Powder Grain Frit F2: Fine Grain Frit F3: Medium Grain Frit

<u>Click here for short and sweet Youtube Video</u> <u>clip on making this flower!</u>



6" dia Sheet of Clear COE96 Glass

F1 yellow trans in center F1 Turns pink trans as petals F1 Deep purple trans on border and between petals F1 Orange trans as dots in center

Drag Deep Purple into Turns Pink and visa versa with a thin tool such as a knife. Slump on GM51 Slump with Hump using the firing schedule in table 1.

For tutorials, molds, info and more go to www.creativeparadiseglass.com

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