Glass Line paints

are produced by a US manufacturer in Tacoma Washington.

The facility contact is Clay Art Center.

How to use Glass Line paint:

This has great information. Personal experience comments have been added below on several points

https://happyglassartsupply.com/blogs/glassline-paint-pens-instructions/glassline-paint-pens-instructions/ pos=1& sid=f1da02cc2& ss=r

3. Prepare your paint by shaking it.

***Unfortunately, since the particles of a suspension are larger than those of solutions and are insoluble, they settle to the bottom of the container over time. Therefore, suspensions need to be shaken to ensure that the solute particles are evenly distributed throughout the mixture.

However, shaking introduces pesky bubbles. After mixing the product, roll it in your hands. Tap the tip on a firm surface on a paper towel as some paint will come out the tip. This tapping helps bubbles rise in the bottle, away from the tip. Store bottles tip DOWN to help keep bubbles UP.

7. Be sure to not make the paint too thick. It will look cracked when it dries and then it will look cracked when you fire it.

***if it came out of tip too thick, move the paint with a toothpick or paintbrush along the path of your pattern, unless you want a raised thick area for texture. Or you can spread it wider, let it dry & scratch/remove it later.

8. Dry your paint with a hair dryer.

*** When I force it to dry faster, it has always cracked. Allowing it to air dry will produce a raised area but not cracked. If it cracks & it is not the look you want, remove some or all with a toothpick or similar scratching tool & reapply to meet your expectations. Place the piece to dry under a box or similar covering to reduce dust, etc from settling on your work while drying.

9. Scrape away unwanted paint using a scraping tool such as a toothpick, razor blade, Xacto knife, or any scraping tool you like
*** SAFETY ISSUE: blow on the surface as you do this, then lift your head to inhale fresh air. This keeps you from inhaling the dust that's being produced by scratching it.
If you have a lot to remove, WEAR A DUST MASK.
10. Sweep away the particles of paint that were scraped away using a soft bristled paint brush.
***pointed Q-tips are very helpful to remove tiny particles & residual dust. Inspect the area carefully as the 'residue' dry paint dust will show when fired (don't ask how I know 😞)
12. When we have dust of the paints, sometimes I put the dust in a 2oz portion cup, write on the lid the GL number of the paint.
***SAFETY ISSUE: wear a mask if working with dust.
13. Fire the painted piece with the painted side up with no cap.
*** My firing schedule is available elsewhere in this PDF.
If you have painted on a variety of glass pieces (different COE's)they can be fired together to set the paint. I often work on several pieces at the same time. I am frequently painting on something while other pieces are drying.
Stippling the paints on glass:

3. Prepare your paint by shaking it.

*** here bubbles should not be an issue as the paint is being mixed & moved with a stippling

brush or other tool on the glass.

5. Dry the paints with a hair dryer then set in the kiln paint side up with no cap and fire per the

recipe above.

**see air dry discussion above

Layering glass to full fuse single & multiple layers

Glass Line paint can be applied to the front & back of the layers of glass to create depth & dimension. Multiple layers, fused with a dam to maintain depth, are great!

The full curing temperature suggested is 1500 for vibrant colors. However, it does well at the full fused temperature of 1450-1460+ (96 COE) *

Stabilizing the paint can be done by kiln. Be aware, a thick line of Glass Line will spread out when it is full fused. Thin lines are suggested unless a wide line is part of your design. This creates a 'coloring book' image. The 'setting' can be repeated several times.

SPEED KILLS...RAMP SLOWLY

Slow ramps (up & down) are your friends when you have multiple layers. Some dramatic pieces are 1.5" thick with GL paint on the top & bottom of each piece of glass. A dam is needed to work this thick.

*FYI: float glass / bottle glass full fuse temp: 1550°F

Bubbles in layers of fusing

To reduce/ prevent air trapping between layers which creates bubbles, use a light application of clear fine frit on the bottom layer. Think of it like a sprinkling of salt.

Bubbles have occurred with the GL fired down since 'setting' the lines will leave a slightly raised texture.

Tangled in Glass: Jester



Tangled in glass: Nipa



Look closely & you will see bubbles in the dragon piece: The following piece was painted, dried & fired. The texture from the paint will cause bubbles.



How to fire this piece:

https://www.delphiglass.com/pdf/lesson/Fusing%20With%20Glassline%20Pen.pdf?

How to salvage 'dried up' Glass Line paints

Use a small amount of water & allow it to absorb into the dry material. Add more water, shake well. Use a glass rod or CLEAN mandrel to stir/ mash the chunks until it is liquid. The manufacturer suggests **DISTILLED water** be used to reconstitute the product.

Heat setting GL paint on fusible glass:

Use as low a temp as possible. The following is my schedule for 96 glass. (All kilns are different, run a test piece in your kiln to see if this schedule will work & make adjustments as needed)

```
1..400...1000....20
2..200...1150....20
3..9999.....960....60 (900 for 90 COE)
4..100.......700......10
5..0
```

These temps are Fahrenheit

If you are painting on **float or bottle glass**... substitute this for segment #3 (information from Glass With a Past)

```
3..9999....1060.....45
```

If you are like me, with a serious need to be multitasking & therefore, painting on several pieces while others dry, consider **this schedule which combines float & soft glass**.

```
1.400...1000....20
2..200...1150....20
3..9999..1060..45 (80 COE)
4..9999.....960....60 (900 for 90 COE)
5..100.......700......10
6..0
```

Full fusing after you have finished painting your piece:

If you are full fusing...which actually brings out the full color possibilities of GL paint, use the following schedules.

Soft glass

```
1..400...1000....20
2..200...1150....20
3..9999...1450/ 1460...20 (COE 90 ? Higher)
4..9999... 960 ...60 (COE 90 .....900)
5..100.....700......19
```

Float glass

```
1..400......1000....20
2..200......1150.....20
3..9999....1550....8-10
4..9999....1060....60
5..100.......700.....10
6..0
```

(All kilns are different, run a test piece in your kiln to see if this schedule will work & make adjustments as needed)

Firing schedules for float glass:

This information will be helpful if you enjoy recycled glass fusing.

https://glasswithapast.com/knowledgebase_category/float-and-bottle-glass-firing-schedules/

Float/ bottle glass COE:

The COE of float glass can vary from **82 to 86** depending on the glass maker and even depending on different production runs from the same glass maker. You can only trust it to be compatible if you use only glass from the same original sheet but NOT if you mix pieces from different sheets.

Most bottles tend to be in the **82-86 COE range** which is similar to float or window glass. However, since the COE of any given bottle glass is unknown, it is not recommended to fuse them with other bottles or fusible glass.

Remember:

All kilns are different! Run a test piece in your kiln to see if these schedules will work for you & make adjustments as needed. Above all, ENJOY the process.

Zentangle...for more tangles than you can shake a stick at!

Of course, I have to leave you with access to tangles!

Zentangle.com

Tanglepatterns.com