



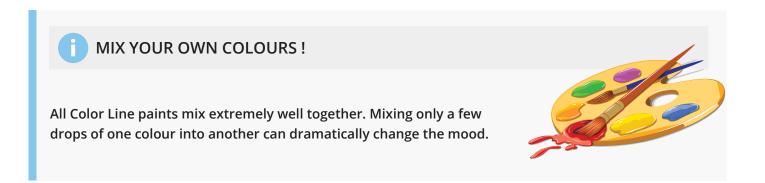
What are Color Line Paints & Pens?



Color Line Paints & Pens are ready to use enamels for glass or ceramics in a fantastic range of intense colours. Available in squeeze bottles for use as lining pens or in larger units for painting, airbrushing, screen printing and more!

The firing range is from 700°C to 820°C (1300°F – 1510°F). All colours have extremely strong pigmentation, are lead-free and freely mixable to obtain further shades. They are homogenous and smooth in a water based medium, environmentally friendly, and easy to use in exactly the required amount ensuring low wastage.

All auxiliary products are also lead-free.





Good to know

REMOVE SEAL BEFORE USE



All of our paint bottles have been sealed to ensure long shelf life and to prevent spillage during transport.



Unscrew the cap and remove the seal (A).

Make sure that the white foam ring (B) remains inside the cap.

PAINT PREPARATION

Color Line Pens need to be shaken well before use. This ensures that the medium and paint remains homogenous. The consistency of the different colours may vary slightly. If one specific colour appears a little too thick, a drop of distilled water can be added.

DRYING

Best firing results are guaranteed if the paint application is evenly and thouroughly dried. You can air dry or dry at a low temperature in your kiln, leaving the vent holes open. The thicker the coat, the longer the drying time.

FIRING

The temperature range from 700°C – 820°C (1300°F – 1510°F) allows a wide variety of firing results, from mat to high gloss. The organic medium will burn off at max. 650°C (1200°F). Up to that temperature it is important to ventilate the kiln allowing the vapours to exhaust. When using Color Line Pens & Paints in between layers, fire the individual layers first separately. Stack or combine the components for a subsequent firing.

The colours fire true to their unfired appearance with some variations depending on the thickness of the layer.

COMPATIBILITY

All our test firings have been made with Bullseye glass, on and in between TEKTA, opaque and transparent colour layers, as well as in combination with billets in casting. The product will also work for any other of the typical soda lime glasses.



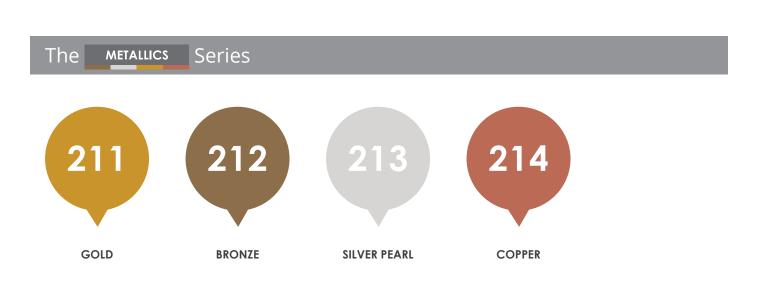
The "18 Originals"





The 2014 Series







Auxiliary Products

COLOR LINE MIX WHITE

Add some of this product to any of the colours for a very strong lightening effect without changing the density of the colour.

For more information see the Quick Lab Note in this booklet "Exploring Shades with Mix White".



COLOR LINE AIRBRUSH MEDIUM

Colour Line Paints & Pens can be used for airbrushing by adding Airbrush Medium to dilute the paint. It also accelerates the drying process on the glass surface, thus avoiding running.



COLOR LINE FLUX

Add some of this product to add brilliance and light. Can be used with any of the colours to enhance translucence.





Auxiliary Products

COLOR LINE OVERGLAZE

Ready to use liquid for more gloss. Usually applied on an unfired layer of paint. Can also be used on a prefired piece to create a brightening effect.



COLOR LINE SILK SCREEN PASTE

For best results in screen printing and stamping, we offer the same colour range made with an alternative medium to give it a pasty consistency.



COLOR LINE 18 ORIGINALS

This set includes the 18 Originals, 1 Tip Set and 1 empty bottle for mixing your own shades.





Techniques

FINE TIP LINE DRAWING

Best worked directly from the bottle, you can achieve perfect line drawing or hand writing imagery by using one of our "Fine Metal Tips". The enamels are highly pigmented and extremely finely ground to ensure smooth application through the finest tip, giving a bright colour effect, even in a hairline drawing.

The soft plastic bottle lies comfortably in your hand and the paint flows readily, with perfect control, without having to use pressure.



BRUSH STROKE

This is a ready to use product for painting on glass. The density and consistency straight from the bottle is ideal for a strong brush application. If a lighter coat is required, the paint can be diluted with a little bit of distilled water. The medium in the paint ensures that it holds well on the glass surface.

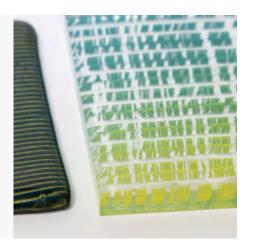
You can enjoy the freedom of direct application with a paint brush, a spatula or even your fingers. You can add a second brushstroke layer on an already dried area.



AIR BRUSH

The paint consistency in the bottle is suitable for airbrushing with the addition of about 35% by weight of the 'Color Line Airbrush Medium'. The enamel is ground so finely, that the grains will not clog the nozzle.

The Airbrush Medium also acts as an adhesive on the glass surface, promoting the drying process and stopping the paint from running. Airbrushing allows the thinnest coat of paint, flawless shading, but can also offer a thick and even paint application on larger areas in a short time.



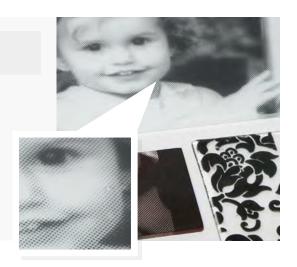


Techniques

SILK SCREEN PRINTING

The extremely high pigmentation of the Color Line Paints is ideal for screen printing. However, for optimal printing results we offer the same colour range made with an alternative medium giving it a pasty consistency. We call this line 'Silk Screen Paste'.

The medium holds extremely well on glass or on transfer paper for indirect screen printing. Color Line Paints work well with a 120 mesh screen.



PAINT INLAY

After engraving or sandblasting a glass surface to your specific depth, fill the deep areas with Color Line Paints & Pens. Use the paint directly from the bottle. Smear the paint over the glass surface, making sure to adequately fill the etched areas.

Dry well before removing the overspill with a spatula, squeegee or with your finger tips. This application gives you a sharp colour outline with a strong definition even in areas of very fine inlay.



STAMPING

Do you remember stamp printing onto paper as a child? Now you can do it on glass. Color Line Paints & Pens will work with any rubber stamp, linoleum cutting or a hand carved potato stamp. For sharp line definition and homogenously printed surfaces use 'Silk Screen Paste' (the denser and pasty form used for screen printing). Use a brayer to transfer the paint to the stamp and make sure all high points are covered.

The density of the paint will leave a strong and clearly defined image on the glass.





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LAB NOTES

Things you want to know when firing red

The red in vitreous products is known for its special character. It has always been difficult to make a consistent red glass, those who mastered it kept it a secret and again and again the knowledge was lost.

Color Line offers 2 brilliant reds – 125 Carmine & 011 Red – which luckily are easy to use and behave much less capriciously than many other red enamels. However, there are few helpful things to note:

- 1.) Out of all Color Line products, the Carmine and the Red are the brightest in expression and shade. They are also the most difficult to get off your fingers and clothes. If you want to be on the safe side, wear old clothes and gloves when you work with these colours.
- 2.) Even though the pigmentation appears and in fact is very strong, you need to use a good amount to have a strong registration after firing. This is especially true when you airbrush the colour.
- 3.) All Color Line Paints are freely mixable including Carmine & Red. However, some mixes end up as a brownish/greyish shade after firing looking very different from the unfired product. To be sure of your colour mix, we advise you to run some tests prior to working on a larger project.
- 4.) We have discovered that trying to obtain a light pink when mixing red and white is very difficult. Based on the problems mentioned under point 2.) the Red tends to burn out, leaving you with the White only. In our testing we found that a ratio of 1 part Carmine or Red and 6 parts Mixing White resulted in a pleasant pink.
- 5.) Carmine and Red like to be fired alone. You are unlikely to encounter a problem, if the colour is used and fired all by itself, i.e. fire the other colours before and add the red in a further separate firing.
- 6.) Finally, (and this is the solution to many firing problems), keep the kiln vent holes open during the firing. Carmine & Red do not like the slightly reductive (oxygen poor) atmosphere you typically have in a kiln. By leaving the vent holes open, or the door slightly ajar, the kiln will draw in Oxygen from outside and guarantee you a stable and brilliant red.



For more info & tutorials visit:

www.colorlinepaints.com





QUICK LAB NOTE

Exploring Shades with Mix White



Color Line Paints & Pens offer the maximum of colour mixes you can imagine. All colours mix freely, meaning you will not have unexpected reactions between specific colours as you might have with some other glass enamels. In many cases, the result of a two colour mix can literally be guessed, but there are also some surprises to reckon with, and some shades are really hard to obtain.

We encourage the user to experiment with small amounts of paint and take note of the volumes or weights you mix and to always document the fired result. If not, it is hard to back track what the ingredients were.

In our studio, we have run tests with the 18 ORIGINALS and also a few of colours from the 2014 Series, mixed with different ratios of the Mix White 129. We chose the Mix White instead of the normal white 128, because its properties are better suited for brightening a colour and also on account of its lower cost. In this test we started out with the pure colour and kept adding Mix White at different ratios. The shades we obtained got lighter and lighter – as you would expect – but not to the extent we had anticipated. To get really pale shades of a specific colour – and this was especially true for the darker shades – we had to add a lot of the Mix White.

We have mixed the colour with Mix White in 5 different ratios as shown in the table below. The number of new shades you obtain is amazing. If you have our 18 ORIGINALS colour set and an extra bottle of Mix White, you can already create over 90 shades, just following our mixing instructions.

Just imagine the range you can have by starting out with your own colour mixes and then brightening these with Mix White.

Ratio

Paint Mix White

| Pure Colour | 1:1 | 1:2 | 1:3 | 1:4 | 1:6 |
|-------------|-----|-----|-----|-----|-----|
| 100% | 50% | 33% | 25% | 20% | 14% |
| 0% | 50% | 66% | 75% | 80% | 86% |

