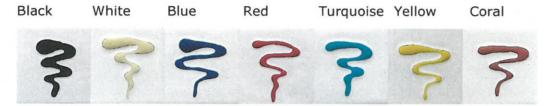


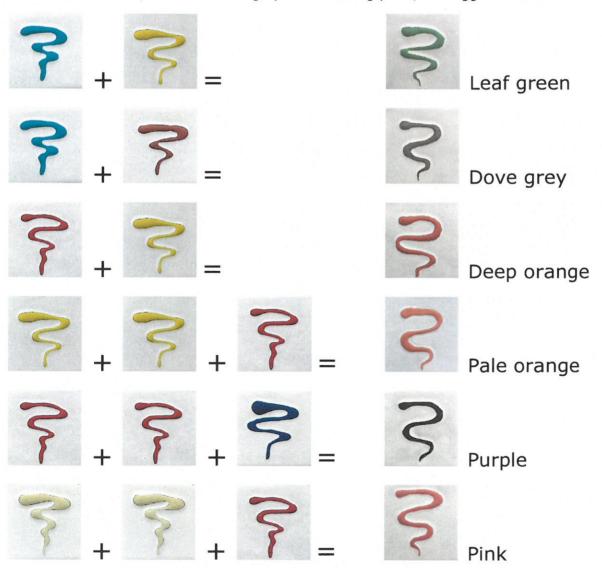
## **Liquid Jewellery Enamel Pens**

We have developed a new range of ready mixed liquid jewellery enamel for application via a "pen". The colours are lead free and non toxic when fired. These pens offer an alternative application method that can be used both in isolation, and also to complement existing application techniques. The colours are supplied in 30ml "pens". The pens are available in seven standard colours:



## **Colour mixing**

We have developed a range of completely intermixable ceramic stains, which we have utilised in this product. The ready mixed liquids can be easily mixed together to create a vast colour palette. Simply measure and pour the colours that you want to mix, noting the mixing ratios for future reference, and mix thoroughly. As a starting point, we suggest these basic mixes:



## **Liquid Jewellery Enamel Pens**

## Application & Firing Techniques

The enamel can be applied directly from the pen through the integral nib. Various line thicknesses can be achieved by varying the pressure on the pen. In addition, fine applicator nibs can be added to the integral nib allowing for fine detail work. These are available in bold, medium and fine. Shake the pen well before use to ensure that the enamel and medium is well mixed. The pen medium is designed not to flow significantly and to dry quickly. This may cause some of the enamel to dry in the nib when exposed to air. This can be easily removed with a small implement such as a sewing needle or paperclip.

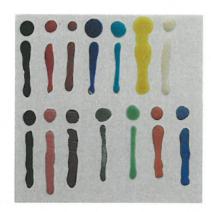
Although the pens can be fired directly onto metal, the appearance is greatly enhanced when a base layer of powdered enamel is applied to copper, or a layer of ground coat to enamel grade steel. The pens can then be applied directly to the fired base. Alternatively, powdered enamels can be used to form part of the design. Apply the powders, fire, then cool. The pens can now be applied and the piece re-fired. It is recommended to fire the enamels in layers. Approximate firing range is  $800^{\circ}\text{C} - 850^{\circ}\text{C}$ . It should be possible to fire several layers at  $815^{\circ}\text{C} - 820^{\circ}\text{C}$ . Varying levels of intensity can be achieved by firing onto different coloured backgrounds.







Samples of the enamel pens fired onto steel with ground coat and a base of titanium white. On the image to the right the pens have been used along with pink and blue powdered enamel.







Enamel pens over black