

Sasha Leon Sculpture & Jewellery

VITREOUS ENAMELLING

Technical aspects of the vitreous enamelling process on precious metal



Piece by Fred Rich

Cloisonné ● Champlévé ● Plique à jour
Limoges ● Basse-taille ● Ronde-bosse



Technical aspects of the vitreous enamelling process on precious metal

We advise that the following information be taken into consideration *before* commencing with the manufacture of an article requiring vitreous enamel. If these instructions are followed it will result in a better product for you and your customers. Manufacturers have in the past requested vitreous enamelling work be undertaken on pieces where the following technical requirements have not been understood and observed causing unnecessary frustration, cost and time wasting for all.

Technical Information

- We strongly advise that prior to commencement of a manufacture you discuss the nature properties and requirements of the article to be manufactured with us (Sasha: 021 461 0847) *before* proceeding with the job. This in itself will eliminate many problems before they arise.
- Metals that are suitable for vitreous enamelling include; 18ct yellow, 18ct white, 14ct yellow, 14 ct white; there must be NO zinc in this alloy, Sterling silver, fine silver, and copper.
- Only hard solder may be used!!!! Easy solder rejects the enamel.
- If a piece is to be enamelled in a recessed space such space must not exceed a maximum depth of 0.4mm.
- Pieces that are cast present particular problems due to porosity of the metal. Bubbles form under the enamel surface which is difficult to get rid of. Sterling silver is particularly prone to this problem.
- Rings in general are not the best choice for enamelling. There is usually hard wear on rings and as enamel is glass this can easily result in damage to the enamel work. However, with careful designing and pre-planning, enamelling can be incorporated successfully into a ring.
- The enamel has to be below the metal surface so that impact with hard surfaces is absorbed by the metal thus protecting the enamel from damage. The base of the shank should always be in metal. Other items of jewellery such as earrings, pendants etc, do not pose the same problems, although care must be taken equally not to damage said items.
- Diamonds can be set prior to enamelling. The kiln fires at 800 degrees Celsius. Great care will be taken to protect the stone, but there is always that unknown factor which could damage the stone. The enameller is not responsible for this damage. The stones may be set after the enamelling process, but there is a risk of chipping the enamel. Stones other than diamonds may not be fired.
- It is not always possible to match the exact colour required; however care will be taken to match the requested colour as closely as possible.
- The colour of translucent enamels that you choose yields a different outcome after firing depending on the colour of the metal used. Yellow gold shows through the enamel thus creating a different colour effect compared to the same translucent colour used on a silver backing.

- The enamellist's job is to enamel your article, not to finish off the metal work, polishing or sanding.
- The enamel can only replicate the shape of the base plate. Enamel that sits on a flat surface cannot be used to create a domed effect; the article itself must be domed before enamelling.
- Always advise your customers about the special care they need to take to ensure the longevity of their enamelled article.

Enjoy enamelling!

A handwritten signature in cursive script that reads "Sasha". The lettering is fluid and elegant, with a prominent loop on the 'S' and a long tail on the 'a'.

sasha@slsj.co.za