

Enamelling INTRODUCTION

Enamelling is a great method of adding colour to your work. The enamelling process is a way of heating powdered glass on metal at a high temperature (850C) using a kiln or torch so that it becomes molten and fuses. Enamel comes in various colours in both opaque (can not see through) and transparent (see through). They can be mixed and used together or separated into sections such as Cloisonné. You can create channels for separate colours in the metals by etching, soldering wires on &/or casting shapes with ready made dips.

Remember the kiln takes about 30 to 40 minutes to heat up to temperature.



KIT BY H.S.WALSH

- *after firing leave your work 30 seconds before quenching in water*
- *clean scale off by soaking in pickle pot for up to twenty minutes*
- *experiment with colour combinations before applying to your final piece*
- *remember colours may look different on copper compared to silver*
- *there are millefiori beads, strands and chips too*

1. PREPARE THE METAL

Consider the piece as though approaching soldering - it needs to be clean, dust and grease free. Accomplish this by bathing it in the pickle pot for ten minutes. Try not to touch the surface where you will put enamel. There is also an abrasive sponge that can be used to rub the surface clean.

2. SELECT COLOURS

If you are using opaque colours you will need to use two coats for the best finish. For two coats of enamel or more you will need to counter-enamel the back of the piece. This is to ensure even tension to the metal. If you do not counter enamel you may find the top coat chipping off or the metal might even bend.

3. HOW TO APPLY POWDERED ENAMEL

Use a clean sheet of paper for each different colour to avoid contamination when putting the excess back in the pot. It is also good practise when creating your piece so that you are more considerate of colour combinations, as the powdered glass often looks the same colour before firing. Pop your work on a block to raise it from the paper for easier transference from paper to the mesh support or stilt. Pour some enamel into a sieve away from the piece and then move the sieve over the piece and create an even layer across the surface.

4. MOVING THE WORK

For a piece that has a clean underside (no enamel) you can use a palette knife to transfer onto a wire mesh. Use the firing fork to move the mesh into the kiln. For work that has enamel on the underside carefully transfer the piece with the palette knife onto the stilt. This will only touch a few places at the side of the metal. The stilt must still be on the wire mesh for moving into the kiln.

5. FIRING

Look for a red to orange colour rather than orange to yellow (too hot) in the kiln. With kilns without a temperature gauge you will need to use your experience - similar to cooking on gas without a recipe. Once your piece is in the kiln with the door shut time 90 seconds and check. If it is a sandpaper/sugar finish it is too cool and needs longer, if it is an orange peel colour it has begun to melt but is not smooth so will need longer still. You are looking for a smooth glossy surface. The colours change as they cool so don't worry about colours - just look at surface texture. The enamel will start to peel away if it's too hot or over-fired.



1. Sugar
Looks like fine sugar.

2. Orange Peel
Looks just like an orange peel--glossy with bumps.

3. Full fuse
Full fuse is when the surface is smooth and shiny.

4. Over fired
Over fired is when you start to see pits in the surface, black spots and sometimes the edges start creeping and/or changing color.

for three dimensional objects use the gum to 'stick' the powdered glass to the surface.

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