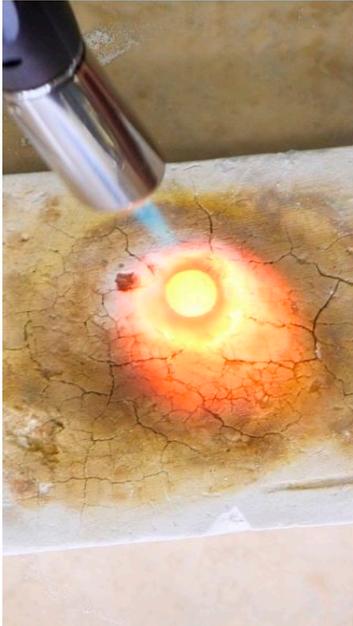




Jewellery Design & Management International School

NEW METALS TECHNOLOGY I CREATIVE SILVER MODELLING



PROJECT SEVEN FINISHING TECHNIQUES



Notes on Finishing techniques for Metal Clay Silver

1. Safety

Eye Protection: Safety glasses should be worn at all times. Wearing the glasses will protect eyes from metal filings especially while using motorised equipment and fire.

Hair: Long hair should be tied back especially while using motorised equipment and fire.

Clothing: Loose garments are at risk of getting caught in motorised equipment. Make sure that garments are fitting.

Shoes: It is important to wear closed shoes. Open shoes or sandals are not appropriate when working with metals.

2. Filing

Files can be used to refine the shape, to remove deep scratches and in preparation of sanding and polishing. Coarse files should be used followed by finer files until the scratches are difficult to see with the naked eye.

Most Coarse ←—————→ Least Coarse
Large file Green handled file No handled file

3. Sanding

Sanding of curved surfaces is usually best achieved with the Sand sponges whereas for flat surfaces sandpaper is recommended. As with the files it is important to start with a coarse grade sand sponge or sand paper and gradually work through several successively finer grits. Although sand paper can be purchased from very coarse (the lower the number the more coarse the grit), commonly 600 grit is a good starting point after filing, followed by around 1200 grit and finishing with 2000 grit. For sand sponges the order would be Red (Superfine) followed by Blue (Ultrafine) and finally Green (Microfine)

4. Polishing

There are many polishing compounds on the market today. The polishing helps to bring out an excellent shine and lustre especially on raised areas. One brand which works very well is 'Wenol' but it is not so easy to purchase in Singapore due to its chemical content and the strict importation laws. Another which is easier to find is 'Autosol' which is also used for polishing chrome and car surfaces. A very small amount of the polish is required on a clean soft cloth and is rubbed onto the surface of the Metal clay with moderate pressure. The silver piece should then be gently rubbed with a clean tissue to remove any excess compound. **WARNING:** When using polishing compounds please take care to avoid contact with eyes and face and wash hands immediately after use.

5. Use of Flexshaft

Flexshafts or high speed rotary tools are excellent for fast removal of metal, sanding and polishing and come with a variety of accessories which make the finishing process quick and easy.

WARNING: Always use eye protection when using powered tools!

6. Magnetic or rotary finishing

Automatic tools such as magnetic and rotary finishers mechanically perform early stages of finishing without supervision – fine sanding, burnishing and polishing may then be applied. Magnetic finishers typically operate much more effectively than rotary finishers; however rotary finishers can use different polishing media, including almond husks for fine polishing.

Magnetic finishers require the immersion of the un-finished piece into a soapy liquid containing magnetised steel shot; after running for between 5 and 15 minutes, the finisher pieces should be removed and ALL steel shot returned to the container. To prevent the steel from becoming demagnetised, it should NEVER be left on the magnet surface when not in use.

7. Textured finishes, hammering or engraving

A smooth lustrous finish takes time, patience and skill to achieve. Your first creations will not be perfect. If the surface is not up to standard then a fast and effective answer is always to texture. Textures can be made in several ways. One possibility is using a hardened steel tool with different shaped ends, hammered into the silver. Another is to use an extremely sharp tool called a graver to engrave lines in different directions on the surface of the metal.

8. Quality Stamping, 999

Metal Clay silver is pure silver with no alloy added. It is a good idea to stamp your jewellery pieces so that others will know the type of silver. Hold the stamp straight and hammer once firmly to achieve a full and clear sign.

9. *Shaping – Flat or domed*

Hammering metal on a stainless steel block with a dapping tool or hammer will result in either a good flat surface or a domed or concave shape however, limited hammering is advisable as the metal will become brittle and break. The solution is to anneal the metal in the oven between hammerings which induces ductility in turn softening the material, relieving internal stresses, and refining the structure by making it homogeneous.

10. *Using Paste for repairs*

When metal clay has been fired and shows cracks or breakage, paste comes to the rescue. Paste can be applied for repairing already fired metal. It can be applied with a tooth pick or spatula.

Recommendation: apply more paste than necessary and only file off the excess after firing

Tip: To ensure a more solid connection try mixing in lavender oil!

11. Clean-up of stones, and/or texturing

A graver is an extremely sharp instrument which serves several purposes. When properly sharpened it will remove excess metal from around stones , clean up hard to reach areas, and can produce textures over the surface of the metal. Textures can also be produced by hammering hardened tools against the surface of the metal.

12. Melting old Metal clay

Any unwanted projects or broken parts should not be wasted or discarded. These items can be cut into small pieces, placed on a ceramic brick and fired with the torch until molten. The metal will glow red, turn a very shiny silver colour and fuse into a small round ball. **WARNING:** It is not good to look directly into the heated flame at the molten metal for too long. Once the metal bead is cool it can then be oil pasted onto a fired creation, pasted onto an unfired piece to be re-fired, and even flattened with a hammer before either of the above to add decoration to the design.



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