



Hadar Jacobson

Art in Metal Clay

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Instruction Manual for Hadar's Cold Inlay Powders In Silver, Gold, Copper, and Black Colors



What is Cold Inlay Powder?

Each cold inlay powder is a mix of pure metal powders. It is called “cold inlay” because no firing is involved. Only the piece to be inlaid is fired. The inlay is done by filling the indentations of the fired piece with the inlay powder and adding a drop of CA (cyanoacrylate) glue (see The Process, page 3).

Advantages of the Cold Inlay Process

1. Cold inlay allows you to combine metal powders that cannot be fired together because of different firing temperatures or compatibility, such as steel and White Bronze or steel and Brilliant Bronze. *You can inlay any of the inlay powders in silver!*



2. It allows you to use a very low relief, which is hard to achieve with fired inlay. The pieces above are made with low-relief paper embossing folders.
3. It allows you to use molds with fine details.



4. It saves time.
5. After sanding, the inlaid powder looks just like fully sintered metal.
6. The cold inlay powder can be used for **repair**. If your piece came out of the kiln with a crack or a gap, you can fill use the fast cold inlay process instead of re-firing.
7. Cold inlay powders can be used for inlay in other materials, such as wood and polymer clay.

The Process

(Demonstrated with Low-shrinkage Steel XT and silver-color inlay powder)

Press the clay into a mold to make an impression. You can make your own design or use molds with very low relief.



Cut a shape out of the clay layer.



Fire the piece according to its recommended firing schedule.



For the inlay process you will need:

- CA glue (fine or super fine), available from hobby and woodworking shops.
- Optional: an accelerator for CA glue makes it cure in a matter of seconds.
- Recommended: CA glue remover or acetone.
- Protective gloves and mask.
- Teflon® paper or other non-stick surface.
- Duct tape, or painting tape, or aluminum tape.



Stick the piece on a piece of the tape.
Lay the piece on a piece of Teflon paper.



Fold each end of the tape so you can hold it without it sticking to your finger. Use gloves, since your finger may stick to the CA glue.



Pour the powder into the indentations.

Tap the piece or press the powder deep into the indentations.



Above: gold-color powder inlaid in silver clay.

Pour a drop of glue onto the powder (it is recommended to use a needle dropper). You will see the glue infiltrate and spread on the surface of the powder. If it hasn't covered the whole surface, add another drop. You can tilt the piece while holding the tape to get the glue to flow in a certain direction.

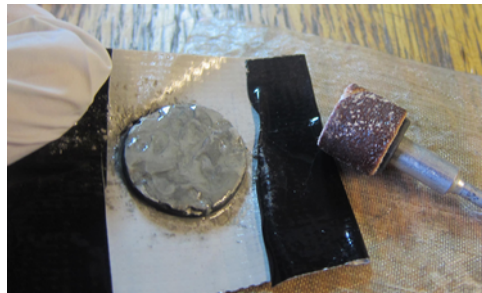


You will know when the whole surface is covered when it all looks shiny.



You can spray the accelerator and immediately continue to the next step or wait for the glue to cure.

Grind the surface with an 80-grit sanding drum. The process will be faster if you use the drum on a drill press and press the piece against it (still held by the tape). Stop grinding when the pattern appears. Make sure all glue is removed from the surface. *Do not over-sand!*



When the pattern starts showing, move on to 220-grit sandpaper, followed by 400-grit.



Apply gun patina to highlight the contrast between the metals. If the silver-color powder picks up some of the patina, buff it off with a soft brush.





Silver-color inlay powder in copper. Theoretically, you could have fired the copper first, then inlay White Bronze and re-fire. However, the White Bronze will shrink some, and more than one re-firing will be required.



Black-color inlay powder in silver clay or White Bronze.



Silver-color inlay powder in steel. The indentation in the steel was created with a diamond burr.



Gold-color inlay powder in steel.



Black-color inlay powder in Friendly Brilliant Bronze.



Black-color inlay powder in Friendly Copper.



Gold-color inlay powder in silver clay.



Copper-color inlay powder in White Bronze.



White and gold-color inlay powders in wood.



White-color inlay powder in polymer clay.

Important Notes:

1. Transfer the powders into plastic containers and shake them well before each application.
2. When handling the glue be sure to wear protective mask and gloves.