

FIVE STAR
metal clay
Copper

*Superior Metal Clay
Torch & Kiln Firable
Patinated or Natural Beauty*



Laura Moore

About Five Star Metal Clays and Copper

Five Star Metal Clays are new, revolutionary metal clays that have all the features you desire in base metals. They are simple and fast to fire. The ultra refined powders create a smooth finish for easy polishing. The clays are easily carved and work with cutting machines while also holding great sculpting detail. Five Star Metal Clays come in five metals; copper, red bronze, bronze, light bronze and white bronze. And, all five metals can be fired together in one firing.

Copper is a wonderful metal to work with. The color is rich and highlights almost any stone. It is easy to work with in clay state, fires either by torch or kiln and polishes to a high shine. Five Star Copper Clay shrinkage rate is between 12% and 15%.

Five Star Copper Clay can be formed, molded, rolled, sculpted, and shaped with very simple tools.

Basic tools include:

Non-stick work surface
Rolling tool
Depth measuring guides
Molds and textures
Stainless Steel Firing Box
Activated coconut carbon

Release agent
Cutting tool
Kiln or Torch
Burnisher
Brass brush
Steel mesh



Working with wet clay



Five Star Copper Clay is a wet clay you may work with immediately after opening the package. If the clay is drier than you would prefer, condition the clay by adding a little water and folding in thoroughly. Roll, mold and sculpt your pieces and allow to dry fully. Two pieces of clay can be connected with paste (slip). This can be achieved in the wet clay state or dry clay state. A thick paste is always better than a thin paste for attachments and regular clay is preferred whenever possible.

Any leftover clay should be stored in an airtight container for use later. A mist of water on the inside of the lid will help keep the clay moist longer.

Drying and refining clay

Five Star metal clays must be fully dry before firing. Failing to remove all the moisture in a piece may cause air pockets with your finished work and may ruin the final piece.

Air drying with no heat is strongly recommended to avoid warping. As an alternate, a dehydrator will also achieve good results. It will take roughly 24 hours to dry the clay thoroughly. Flipping the pieces over during the first hour or drying will also help with warping issues. Thicker, larger pieces will take longer to dry.

Sanding the edges and any flat surfaces should be done after the clay has fully dried. Sanding will minimize any unseen fractures on the edges thus reducing possible cracking during firing.



Firing Five Star Copper Clay

Five Star Copper Clay can be fired with a torch for in a kiln with activated coconut carbon. Kiln firing is always preferable as it creates a higher sinter level within the piece. Also, torch firing will produce an oxide layer on the surface of your piece which will require pickling or polishing to remove. If a kiln firing is performed, Clay Revolution recommends a two step firing schedule for the best results. Three firing options are provided for your convenience.



Standard Option (recommended): 1. Pre-heat the kiln to 1000°F; put the pieces in, on a steel mesh and fire for 5 minutes. Allow to cool slightly. 2. Place 1" of carbon into the steel container, place the pieces into the container leaving 1" between each piece and continue to fill with carbon until the box is full, place the lid on and put into the kiln. Fire at 1700°F for 1 hour. Allow to cool completely.

Fast Fire Option: 1. Pre-heat the kiln to 1000°F; put the pieces in, on a steel mesh and fire for 5 minutes. Allow to cool slightly. 2. In cool or pre-heated kiln, place the stainless steel container, with carbon and pieces inside the kiln WITH NO LID. Fire at 1700°F for 30 minutes, remove while hot and quench in water.

Torch Firing Option: Place the piece on a steel mesh, on top of a fire brick. Using a large torch nozzle, burn the binders off of the piece by catching it on fire for approximately one minute.

The size of the nozzle is important in torch firing copper as the larger the flame, the more oxygen it will eliminate from the environment around the clay. Bring the piece to an orange glow and hold for 5-10 minutes. Keeping the piece hot, immediately quench in water. Keep the piece under water while the black oxide pops off the surface. Pickle to remove any excess oxide. The best results for torch firing copper will be achieved with pieces about 1" in diameter and 1/4" thick.



Polishing Five Star Copper

Once fired, the piece will be solid metal. Copper can be polished with simple tools such as a brass brush and burnisher. Rotary tools and tumblers are also wonderful tools to save time and energy. To begin your polishing, brush the piece under water with a hard brass brush.

Flexible bristle disks are preferred as these will not leave compounds or metal discoloration on your pieces. Start with the coarsest grit and work your way down to the finest grit. You will notice that the metal is hard to polish in the initial state, but eases with each step. Continue until the desired finish is achieved.

Pickling may also be done to brighten the copper. We recommend Yurina Pickle as a safe pickling agent. Place the piece(s) in warm solution for 5-10 minutes. Rinse in a water bath with a little baking soda to neutralize the pickle, then rinse under water thoroughly.



**CLAY
REVOLUTION!**

FIVE STAR metal clay
Copper

FIVE STAR metal clay
Red Bronze

FIVE STAR metal clay
Bronze

FIVE STAR metal clay
Light Bronze

FIVE STAR metal clay
White Bronze

www.clayrevolution.com
Trinity, North Carolina
info@clayrevolution.com
562-879-1572

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