

FIVE STAR
metal clay

White Bronze

*Superior Metal Clay
Beautiful Silver Color
Easy Firing Options*



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About Five Star Metal Clays and White Bronze

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.

White bronze is an extraordinary metal which can create the beautiful silver color of sterling silver, while minimizing metal costs. It is simple to work with in clay state, fires with activated coconut carbon in a kiln, and polishes to a high shine. White bronze has characteristics different than other metal clays and should be treated accordingly. It is best used for pieces which will not need to be bent after firing. Very fine, delicate work should be handled with extreme care immediately after firing and then work hardened during the polishing process. Five Star White Bronze Clay shrinkage rate is between 12% and 15%.

Five Star White Bronze 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

Kiln

Stainless Steel Firing Box

Burnisher

Release agent

Cutting tool

Molds and textures

Activated coconut carbon

Steel brush

Steel mesh



Working with wet clay



Five Star White Bronze 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. Do not use silver embeddable findings, as the tin may react. Titanium, niobium or nickel silver are appropriate alternatives.

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 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 White Bronze Clay

Five Star White Bronze Clay should be fired in a kiln with activated coconut carbon. It is highly recommended that a stainless steel container and a lid with no holes be used. Warped or old containers may allow excess oxygen inside the container while firing which could cause sintering issues. Activated coconut carbon should be placed inside the box and each piece of white bronze should have approximately 1" of carbon surrounding all sides. Clay Revolution recommends a two step firing schedule for the best results. Two 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 1300°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 1300°F for 30 minutes, remove while hot and quench in water.

Firing Tips

Five Star White Bronze Clay should be dark charcoal color after step 1 and pewter/steel color after step 2.

Do not try to bend, break, test strength or put any other pressure on white bronze immediately after it is removed from the carbon. The piece must be hardened to prevent breakage. It is extremely delicate in this state.

To test sintering, brush the piece, on a support, with a steel brush, very lightly. If the surface begins to wear off, sintering has not occurred and the piece should be re-fired. If the surface does not wear away, continue brushing lightly and begin the polishing process.

Polishing Five Star White Bronze

Once fired, the piece will be solid metal. White bronze should be treated slightly differently than many other traditional metals. To begin your polishing, brush the piece under water with a hard steel brush. The steel will not discolor your white bronze as the brass brushes may do. Use a support under the piece to avoid any breaks when you begin the polishing process. As you polish, you will notice that the metal is hardening. This will make it easier to polish and will then create an extremely hard, durable metal.

After brushing thoroughly, rotary polishing tools are recommended. 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.

