

# ART CLAY™ ART CLAY™ BRONZE Instructions

 <b>WARNING</b>	<ul style="list-style-type: none"> <li>● This product may crack and burst during firing if insufficiently dry.</li> <li>● Oxygen is consumed during firing and smoke and gas emissions may result. Please fire in a well ventilated area.</li> <li>● Do not place just-fired pieces on any flammable surfaces or combustible materials as the piece will be extremely hot and could cause a fire.</li> </ul>
 <b>CAUTION</b>	<ul style="list-style-type: none"> <li>● Take precautions against burns from the heated clay when drying, firing, and after firing.</li> <li>● Keep out of the reach of children. If the product comes into contact with eyes or mouth, please rinse thoroughly with running water. If problems persist, please see a doctor.</li> <li>● Be aware that some people are allergic to bronze. The level of reaction is different according to the individual, from light to severe. If you do have an allergy against bronze and work with and/or wear bronze accessories made from the product directly on the body, some kind of allergic reaction may occur. If in doubt, please seek medical advice from a qualified medical practitioner before use.</li> </ul>

## [Characteristics]

● Art Clay™ Bronze is a clay material made from alloy powder, binder and water that you can use to make a wide range of pieces such as jewelry, craft designs, and objects like sculptures and models. Art Clay™ Bronze can be fired and its alloy powder fuses together in an electric kiln using carbon under reducing atmosphere, with the resulting fired piece being solid alloy (Copper 90%, Tin 10%). The percentage of alloy powder in Art Clay™ Bronze in the clay state is 90%.

## [Instructions for use]

- Due to the differences between Art Clay™ Bronze and other Art Clay series clay (ie. Art Clay Silver), the clays may contaminate each other if mixed accidentally during preparation. This can occur by using shared tools. It is therefore recommended to use separate tools for each type of clay. If this is not possible, please clean the tools carefully after each use to limit the chance of contamination.
- If Art Clay™ Bronze and other Art Clay series clay was mixed, features and conditions for drying and firing would be changed which may break the piece. The manufacturer and sellers will not be responsible for any firing result or accident with wrong use.
- Wash your hands well after using the product.
- After firing in the kiln, if oxide layer was found on the piece, use pickling solution such as a powder-form pickling compound to remove it.
- Follow the written instructions carefully, and do not use this product for any other purposes other than those stated in these instructions.
- Do not bend the fired piece with unreasonable pressure.

## [Storage]

- Please use the product as soon as possible after opening the original product package.
- After opening your package of clay, the surface of Art Clay™ Bronze will naturally start oxidizing and the color will darken if left in the open air. If you see a darkened surface appear, scrape off the darkened layer and use the internal clay to make your piece.
- To avoid oxidation of unused clay after unsealing the original product package, please wrap in several layers of plastic wrap tightly, and then place in a zip-up type plastic bag, or an air tight container. Do not use a rubber band as it may discolor the clay.
- Keep the clay indoors at a moderate room temperature and out of direct sunlight.

## [Instructions]

### MOLDING

Art Clay™ Bronze is a water-based clay, and dries naturally in the air. To avoid drying, when start molding your piece, only take out the needed amount to make your desired piece, and store well the rest of the clay using the instructions explained above. The shrinkage of Art Clay™ Bronze during firing is approximately 10%-13% in length, so please consider this when planning and making your piece.

### DRYING

Dry completely after molding. The dried clay will become hard like plaster, and you can easily enjoy the process of drilling, filing and sanding with hand tools and equipment. Follow the drying instructions and drying check method below.

#### Clay Dryness Test

Place the dried piece on a piece of stainless or glass plate while still warm. Leave for a couple of seconds, then remove your piece from the plate. If you do not see any vapor cloud on the plate where the piece was, drying is completed.

Drying guideline for drying a piece up to 1mm thick, 5g:

\*If the piece is larger than this size, drying will require more time.

Hot air dryer	Electric Hot Plate	Electric Kiln	Natural Air dry method
More than 10 mins. *1	More than 10 mins at 150°C/ 302°F	More than 10 mins at 150°C/ 302°F	More than 24 hrs

\*1 : Place the piece as close as safely possible to the hot air while taking care not to drop the piece.

\*\*\*DO NOT dry the piece over 250°C/482°F, or the binder will be destroyed during drying and deform the shape during the firing process.\*\*\*

### FIRING

**Art Clay™ Bronze must be fired in an activated carbon under reducing atmosphere using a programmable electric kiln.**

- Preparation : Put more than 1cm of coconut shell activated carbon on the bottom of a metal container. Place the piece on the carbon, fill the container with the carbon more than 2cm over the piece.
- Ramp up : Make sure to place the box in far side of firing chamber in the cold kiln, ramp up to 820°C/1508°F using more than 20 mins of ramp up time.
- Holding : Hold at 820°C/1508°F for 2hrs to fire.
- Cooling : Turn off the kiln, and take out the metal box after cooling down to a room temperature.
- \*Make sure to fire the piece in reducing atmosphere.
- \*Do not leave any inflammable stuff around the kiln
- \*If a kiln cannot control at required temperature, it may cause failure result in fired piece.

### PICKLING

As a character of alloy, oxide layer will be created on the surface. Have a surface polishing or use a solution made with pickling compound to remove oxide layer. \*After pickling, neutralize acid of the piece by dipping it in a baking soda mixed water (a small spoon of baking soda in a glass of water) for over 15 mins, then rinse well under running water. \*For use and proper disposal of the pickling solution, please be environmentally responsible and carefully follow the instructions of the pickling compound product.

### FINISHING

After firing, the piece shows matte surface luster. Using metal wire brush, file, rotary tools, buff polishing will give beautiful metal luster. \*When finished bronze exposed in the air, color will be changed as oxidation proceeds. The metal luster can be regained by polishing.