

This is the information and instructions provided by the manufacturers of **Prometheus® Copper Clay.**

WORKING WITH PROMETHEUS® COPPER CLAY

Working with **Prometheus® Copper Clay** is similar to working with silver clays, polymer clays, modelling dough, flower dough and ceramic clays. It is very easy to use.

WET STAGE

- At normal consistency, **Prometheus® Copper Clay** does not stick to hands or plastic working surfaces. However, oiling your fingers and the working surface lightly is useful, and would not harm your clay. Olive oil is preferable.
- Remove the clay from its plastic bag and place it on a clean plastic surface or wax paper. Use your fingers, roller, spatulas, clay shapers, craft knives, tooth picks and other simple tools to shape it, texture it, or turn it on a potter's wheel. You can texture the clay with rubber stamps, texture mats, leaves, paper, and other interesting textures.
- When you work with the clay out of the packet it is called "The Wet Stage". Try to not work at this stage for too long, to stop your clay from drying out; but don't rush your work, **Prometheus® Copper Clay** gives you enough time to play. However, if you detect any cracks on the surface, apply some water straight away with a brush or spray, and fill the cracks with a little paste to repair them.
- To join two pieces together, simply wet the points that will touch, or add a little paste (to make paste, simply mix a little clay with a little water until it is the consistency of thick yoghurt). If the two pieces are dry, wet the touching points, and paste to create a secure bond.
- Store any unused clay in a plastic bag with a zipper to prevent it from drying out. Place any offcuts in the bag straight away whilst you're working, and keep it closed tight. If you're not planning to work with the clay for a while, put the sealed plastic bag in a jar with a tight lid. Placing a wet sponge to the bottom of the jar will keep your clay at a good condition, until your next usage. If you are storing it for a long time, keep an eye on the sponge and add water if needed.

DRYING

- Before firing the Copper clay, you need to dry it completely. A hair dryer or putting it on top of a kiln will do it well. Hot-plates or food dehydrators work well too.
- To check if the clay is completely dried, put the hot clay (straight from drying) on a cold mirror. After 10-20 seconds, move it and check that there is no condensation on the mirror. This test is especially important for big and thick pieces. If the piece is not dried completely, then it can crack, break or have bubbles on the surface while firing.
- We don't recommend fast drying for large piece, as it may cause cracks. For these, it is recommended to leave them in room temperature for a few hours and then continue drying at moderate temperatures.

DRY STAGE

Whilst the dried **Prometheus® Copper Clay** is strong, you still need to take some care when working with it. You can carve designs on the surface, file it, grind it, drill holes with hand tools or rotary tools and engravers. To join dried pieces, wet the joining points with a brush and apply some paste. After completing your design, it is easy to sand uneven surfaces, using sand papers, and sanding sponges. It is a lot easier to do this step now - before you have fired the clay!

FIRING PROMETHEUS® COPPER CLAY

You have 3 choices for firing PBC®:

CONVENTIONAL METHOD (*)

Place the dried piece (or pieces) on a stainless steel mesh and put it in to the pre-heated to 920 deg.C/1700 deg.F. * (**) Wait for the kiln to raise up to its target temperature again, then start timing your firing for 30 minutes.

When the firing is completed, take out the piece, put it on a heat proof surface and wait for it to cool down or much better, quench it in water while it is hot. (***) Most of the fire scale leaves the piece. If any left, leave it in hot pickling solution for some time.

(*) This method is recommended especially for large pieces; statuettes etc.

(**) Most kilns are cooler near the front door, so put them close to the back of the heating chamber.

(***) Be aware of water vapour.

CARBON METHOD

This is a 2-step-method.

Step.1

Place the dried piece (or pieces) on a stainless steel mesh and put it in to the pre-heated kiln at 500°C/932°F, or on a gas hob. Fire for 10 minutes, remove to a fireproof surface and allow to cool down.

Step.2

Put approximately 3 cm. of activated carbon to the bottom of a steel container. Place the pieces with at least 1.5 cm space between them. Fill the container with activated carbon, cover and put it into the pre-heated kiln at 850°C / 1570°F. Let the kiln raise to the target temperature again and fire it for 90 minutes. When the firing is complete, either leave the container to cool down in the kiln or carefully take it out and leave it on a heatproof surface until it is cold enough to take your pieces out. One other firing schedule is 820°C/1500°F for 2 hours which is preferable when PBC® is combined with PCC®.

TORCH FIRING METHOD

Place the dried piece on a stainless steel mesh. Put the mesh on a fibre brick or a thick construction brick. Fire the piece homogenously at an orange-red colour for 5-10 minutes according to the size of the piece. Avoid melting. After firing is completed, either leave it to cool down or quench in water. Leave the fired piece in hot pickle solution to get rid of any remaining firescale.

FINISHING PROMETHEUS® COPPER CLAY

Brush the piece with a steel brush and, if necessary, put it in hot pickling solution. After pickling, rinse the piece thoroughly with water and dry. This will give a nice warm reddish Copper colour. You can also use many different patina solutions to give you other colours.

Polish the piece with a burnisher, polishing papers, a tumbler or polishing motor. Using polishing compounds can give extra shine to your works.