

Copper Tiki bar stool

BY JULIA RAI

Take inspiration from Polynesia to make a copper clay stool suitable for a tiki bar.

Copper metal clay is used for this 1:12 scale tiki themed stool.

Tiki stools are normally carved from wood and the copper colour replicates this quite well when left unpolished. Copper clay requires kiln firing in a reduced oxygen atmosphere, achieved by burying it in activated carbon. At the dry stage, it carves beautifully, allowing endless design possibilities.

MATERIALS

- 50g Art Clay Copper
- Paste Maker
- Teflon
- Roller
- Playing cards
- Straight blade
- Circular cutter or stencil
- Clay shaper
- Sanding sponges

- Wet and dry sanding paper (240 grit)
- Carving tools
- Paintbrush
- Baby wipes
- Stainless steel firing pan with a lid
- Activated coconut shell carbon
- Polishing tools (optional)

1. Choose a cylindrical form on which to build the main body of the stool. This needs to be long enough to accommodate a sheet of clay 55mm long and approximately 25mm in diameter to create the 1:12 scale after firing. An acrylic roller works well. Wrap some Teflon around the form, fixing it in place with sticky tape.

2. There is no copper clay paste available to buy, which

means you need to make your own to stick things together. Remove about 5g of clay from the package, put this in a small container and add half water and half Paste Maker to form a smooth, thick paste. The Paste Maker gives the paste a stronger, more sticky consistency.

3. Sparingly oil a piece of Teflon and a roller. Remove the copper clay from the packaging and knead it for a moment to soften and condition it as it can sometimes be stiff initially. Form it into a square patty and then roll it out five cards thick, forming a rough rectangle at least 70mm long and 60mm wide.

4. Use a straight blade to cut the clay into a panel 55mm wide, leaving the length untrimmed. Wrap the panel around the form

on the Teflon, allowing the end to wrap over itself. Cut straight down through both layers and remove the excess from the top and underneath. Make sure the ends meet neatly and the edges line up.

5. Peel back one edge and put plenty of paste along and under the join. Gently press the edge down and add more paste into the join. Use a clay shaper to fill the join and make sure it meets all the way along the length. Copper clay requires much more attention to joins than silver clay does. Allow to dry.

6. Slide the cylinder off the form and remove the Teflon. Moisten a small amount of the remaining clay and use this to fill in any gaps along the join with a clay shaper. Using moistened lump

clay rather than paste fills the gap more efficiently. This can be left quite rough at this stage as it will be filed later.

7. Allow the filling on the outside of the join to dry completely. Check the join inside the cylinder and fill any gaps using the moist clay in the same way as the outside. This filling of any gaps is an important step to prevent the join from popping open during firing. Dry the piece thoroughly, preferably using a heat source.

8. Put a piece of wet and dry sandpaper flat on the table and file one end of the cylinder so it's smooth and the end is even. This is where the seat will fit. Find a circular cutter or stencil slightly larger than the outside diameter of the cylinder; this will be used to create the seat of the stool.

9. Roll out the remaining clay five cards thick and cut out a circle using the cutter/stencil. Apply thick paste liberally to the edges of the circle, dampen the filed end of the cylinder and press it firmly down onto the circle. Use a clay shaper to smooth the

paste and overlapping edges of the circle onto the cylinder. Dry.

10. Fill in any gaps that appear after drying with moist clay as before and check for gaps on the inside too. When it is dry, sand the outside joins with sanding pads so the surface of the whole cylinder is smooth. Sand the bottom open end of the cylinder with sandpaper as before, making sure the stool is straight when it stands upright.

11. Draw your design on the outside in pencil before you start to carve. When you're finished, wipe the surface with a baby wipe to soften the carved lines. The firing is a two-phase process. Place the piece upright on a kiln shelf and fire at 600°C for 30 minutes to burn off the binder. Allow it to cool.

12. Quarter fill the steel container with carbon. Stand the stool, open-end down, on the surface and cover with carbon. Put the lid on and fire at 970°C for two hours. Allow it to cool completely in the kiln. Leave the fired piece with the heat patina from firing to resemble wood, or polish if you prefer.

TIPS

Always keep silver and copper clays separate. Cross-contamination will prevent the clays sintering during firing and cause your pieces to break. It is fine to use any tools that can be wiped clean with either silver or copper clay but do not use paintbrushes, sanding pads, sandpaper or files with both clays as these cannot be cleaned well enough.

Some people find copper clay reacts badly with their skin so use a barrier cream if this is the case. Baby wipes are a good way of cleaning your hands and tools as you go along.

Keep your fingers behind the carving tools as you are carving your designs. These tools are very sharp and if you slip you could cut yourself badly.

Vacuum out the kiln after firing copper clay in a stainless steel container as they shed black dust during the firing process, called spalling.

RESOURCES

Art Clay Copper, Paste Maker, activated carbon: metalclay.co.uk
Dockyard Carving Tools: csacj.co.uk

EXTRA PROJECTS

There are endless possibilities for tiki stool designs. Use a smaller or larger form for the basic stool body to adapt it for a different scale. The firing process produces a heat patina, which is unpredictable. Adding your own patina or paints/inks allows you to colour or weather the finish in a specific way.



The Dolls' House PROJECT