



## What you need

1

Get together your bottles of Bronze Mixer, Copper Plating Solution and your mixing kit, which consists of a beaker, a pipette and a measure. A tray to stand the bottles in is a good idea, to catch any drips.

Preparing Bronze Mixer to create.....

# Bronze plating solution

The great advantage of our Bronze Mixer is that you only have to prepare the amount of solution you need at the time, thus avoiding the need for bulk supplies.

This solution, when combined in different ratios with copper plating solution, has a wide variety of uses. For example it can be used as an allergy-free substitute for a nickel barrier layer or as a decorative finish in its own right.

The ratio being demonstrated here is the one that can be used as a barrier layer, when gold plating on copper and is 2 parts Bronze Mixer to 10 parts Copper Plating Solution and should be plated at 4 volts. So, if you are using 10ml of Copper Plating Solution you'll need 2ml of Bronze Mixer. This and the other ratios (with the names of the decorative finishes highlighted in red) are presented in the table below.

*NB. You can finely tune the shade you're after by adjusting the voltage slightly down to 3.5 or up to 4.5*

Bronze Mixer	Copper solution	Application
1	10	<b>Red bronze (copper colour)</b> As a decorative layer
2	10	<b>Gold bronze</b> Undercoat when gold plating onto copper and its alloys, tin and its alloys, solder and lead
10	10	<b>White bronze.</b> Undercoat when plating onto tin, pewter, solder and lead. Also makes a good replacement for nickel as an undercoat when plating chromium onto copper.



2 **Copper solution**

Measure out the amount of copper solution you need; in this example, 10ml is being poured out.

3 **Pouring**

Pour the measured solution into the beaker



4 **Bronze Mixer**

Measure out the amount of Bronze Mixer you want with a pipette. In this case it's 2ml.



5 **Final mix**

Add the measured amount of the Bronze Mixer to the copper solution in the beaker and give it a brief stir. The solution should be used within 1 hour.