



## **SUPERBRIGHT ZINC BLUE & YELLOW PASSIVATE KIT 5L**

**Superbright Zinc offers a highly protective corrosive resistant coating for IRON, STEEL, BRASS and COPPER items**

**The zinc layer produced can then be finished in various ways. This Blue & Yellow Passivate kit produces either a bright silver finish, or a gold iridescent finish**



**BEFORE**

**AFTER**



Typically used on nuts, bolts, screws, washers, brackets etc



**BEFORE**

**AFTER**

## **THE PLATING PROCESS**

### **OBSERVE SAFETETY WARNINGS**

**ENSURE GLOVES, MASK AND EYE PROTECTION IS WORN  
WHILST HANDLING THE CHEMICALS INVOLVED AND WHILST  
PLATING AND PASSIVATING IS TAKING PLACE**

**Carefully make up the Superbright Zinc 5L solution following  
the instructions in the kit. Observe safety warnings.**

**A 1KG pack of Superbright salts is dissolved into 4.5 litres of  
warm/hot water. Avoid water sources with a high mineral  
content, so deionised water can be used if the local water  
supply isn't suitable. Once the salts have fully dissolved  
500ml, (half the supplied 1L bottle), of CC57 solution should  
then be added to the plating solution, and the solution  
mixed well. The solution should have an appearance as in  
the picture below, and is now ready for plating.**



**The sleeved anode bar is now clipped onto the plating tank using the 2 **RED** clips.**

**The rods push through holes in the clips**



**An anode is now installed using a crocodile clip lead**

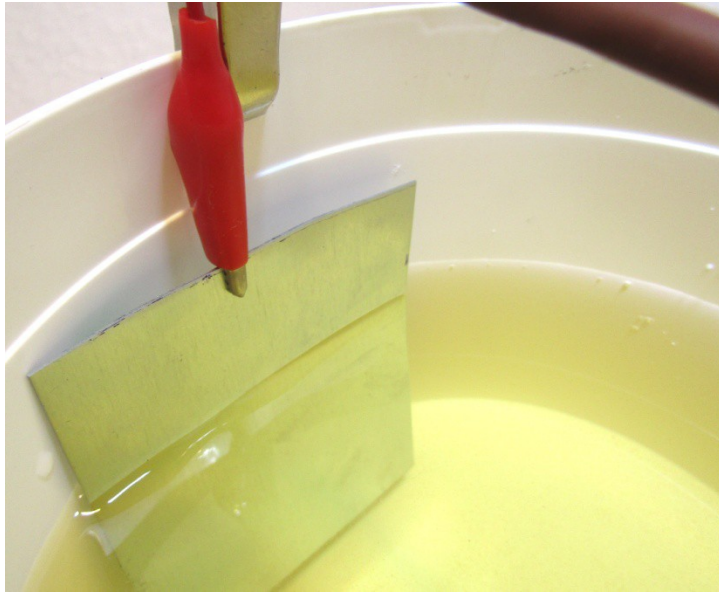


**One end clips onto the anode, the other end clips onto the anode bar that extends outside the plating tank**



**The anode lead is tied around the anode rod so that the submerged area of anode is roughly equivalent to the area of the item being plated**

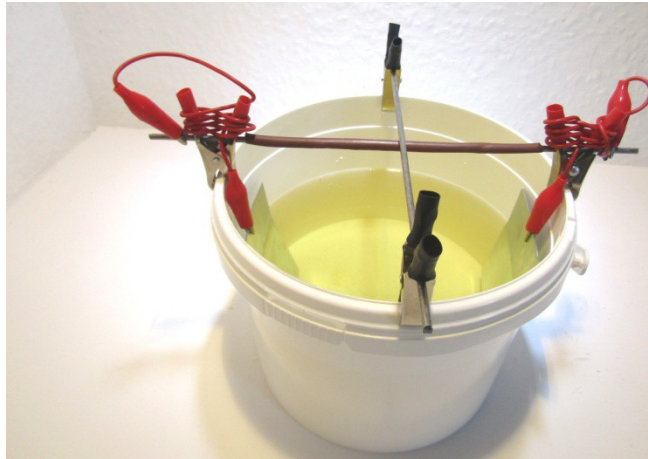
**Ensure that the clip attached to the anode does not contact the plating solution**



**The other anode is now installed in the same way**



**The non sleeved item bar is now installed on the plating tank using the 2 BLACK clips**



The control unit leads are now connected to the ends of the rods using a screwdriver

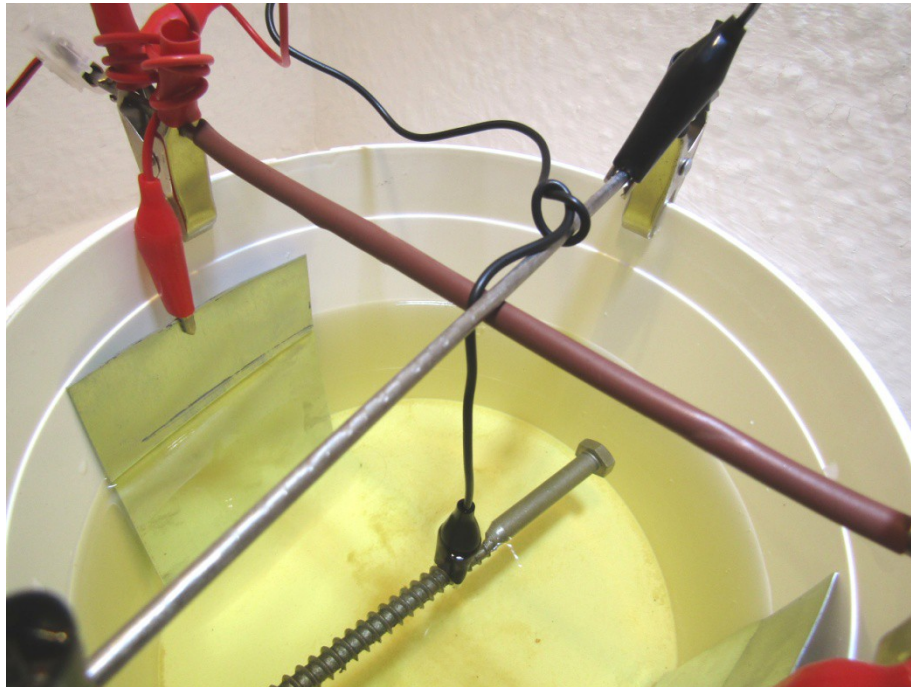
**RED** to one end of the sleeved anode bar

**BLACK** to one end of the non sleeved item bar

The power supply is then plugged into the control unit and plugged into a mains socket



**A crocodile lead is now connected to the non sleeved item bar and the other end is connected to the item being plated. The lead is tied to the item bar so that the item being plated is suspended in the plating solution**



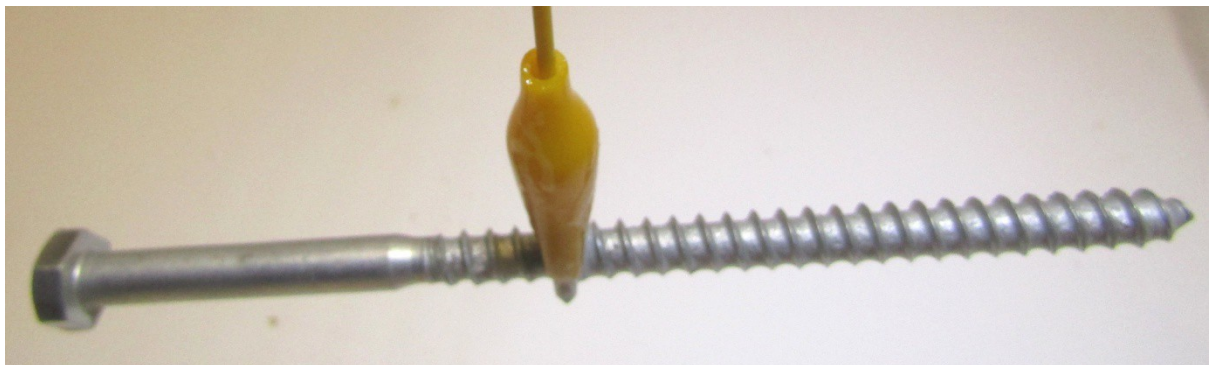
**AVOID hanging the parts on wire, this is not a suitable method of providing an electrical supply to the parts. The anodes will turn black initially after plating, then will turn grey as more plating is carried out**





**At the end of plating the item is lifted from the plating tank using the lead so it is not handled before rinsing and the passivation stage**

**Maximum brightness is only achieved after the blue passivation stage**



**PASSIVATION PROCESS**

**Ensure that the plated item is THOROUGHLY RINSED before the passivation stage**

**Carefully make up a 5L solution of Blue Passivate in a separate container following the instructions.**

**OBSERVE SAFETY WARNINGS**

**If the water supply in your area is hard or has other issues then demineralised water should be used instead. Avoid stationary water sources such as water butts, dehumidifiers etc**



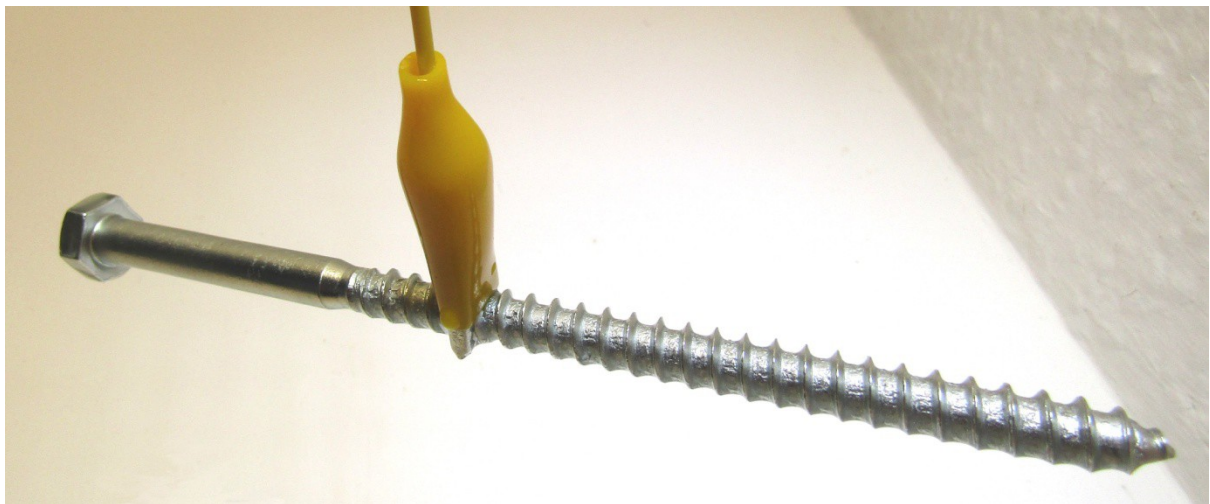
**The plated and rinsed item is simply lowered into the blue passivate solution for 15 to 45 seconds**

**The same crocodile lead used for the plating stage can be used for this passivation stage provided it was also rinsed thoroughly**

**No electrical connection is required**



**The item is now brighter after the blue passivation**



**The blue passivated items can then thoroughly rinsed again and dried in warm air, or thoroughly rinsed and yellow**

**passivated depending on the desired finish. A final warm water rinse will aid drying**

### **YELLOW PASSIVATION STAGE**

**If the gold iridescent finish is required then the item can be plated and blue passivated first as described above, and then thoroughly rinsed before yellow passivation, or the plated item can go straight into the yellow passivate stage after plating and rinsing.**

**The 5L C25 yellow passivate should be carefully poured into the remaining supplied bucket . It is ready to use and should not be diluted.**

**The temperature of the yellow passivate solution will need to be raised to between 25 and 35 degrees C. before the items go into it.**

**OBSERVE SAFETY WARNINGS**





**The plated item is then simply lowered into the pre heated yellow passivate solution for between 90 and 120 seconds depending on the depth of colour desired. The yellow passivate solution should be agitated for the duration of the dip time by either, moving the part gently around in the solution, stirring the solution with a non metallic stick, or using an air supply agitator. The item should then be then thoroughly rinsed.**

**The wet yellow passivate layer is delicate so the item should not be handled until it has been completely dried in warm air using a hair dryer, fan heater or other source. Beware of over- heating the item as it dries.**

## **PREPARATION**

**Ensure that all traces of rust is removed**

**Ensure that all previous plating is removed**

**Ensure that the item to be plated is free from oil, grease and other surface contaminants**

**Avoid blasting items during preparation if possible. If blasting is used further preparation using chemical or mechanical means may be necessary for successful plating**

**Ensure you are happy with the surface finish prior to plating as plating will not cover imperfections**

## **TIMINGS**

**PLATING : Timing depends on the level of protection required. The longer the item is plated for the thicker the zinc layer will be and the greater the protection.**

**Minimum plating time for decorative plating on brass or copper would be around 30 minutes. Maximum time for protection of steel would be 8 hours or overnight.**

**PASSIVATION : Rinsed items are dipped into the Blue Passivate solution for 15 to 45 seconds. Items to be Yellow Passivated are dipped for 90 to 120 seconds. Items are then rinsed and dried in warm air.**

## **KIT CONTENTS**

**PLATING TANK, 2 PASSIVATE TANKS, 1 BRIGHT ZINC SALTS,  
1 BLUE PASSIVATE SOLUTION 1L, 1 CC57 SOLUTION 1L, 1  
YELLOW PASSIVATE SOLUTION 5L, YELLOW PASSIVATE  
TANK HEATER, SUPERBRIGHT ANODES SET, POWER SUPPLY,  
CONTROL UNIT, ROD SET, CROCODILE LEAD SET, PACK OF 4  
SUPPORT CLIPS, SCOURER POWDER, MASK, GLOVES,  
SAFETY GLASSES, TEST KIT, CLEANING CLOTH &  
INSTRUCTIONS**

