



SUPERBRIGHT ZINC BLUE & YELLOW PASSIVATE KIT 10L

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 SAFETAY 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 10L solution following the instructions in the kit. Observe safety warnings.

2 x 1KG pack of Superbright salts are dissolved into 9 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 by stirring the solution well the 1 litre 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



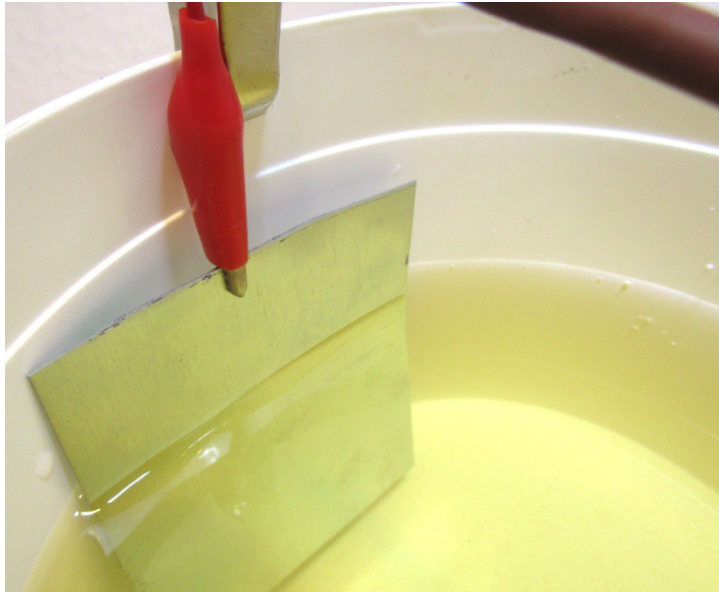
An anode is now installed using a crocodile clip lead

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

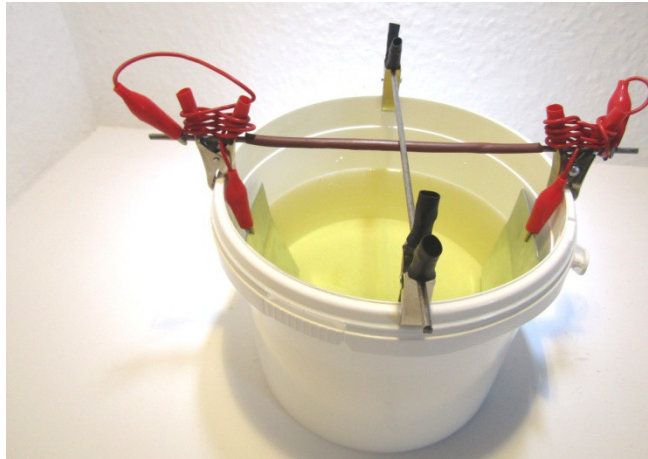
Ensure that the clip attached to the anode does not contact the plating solution



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

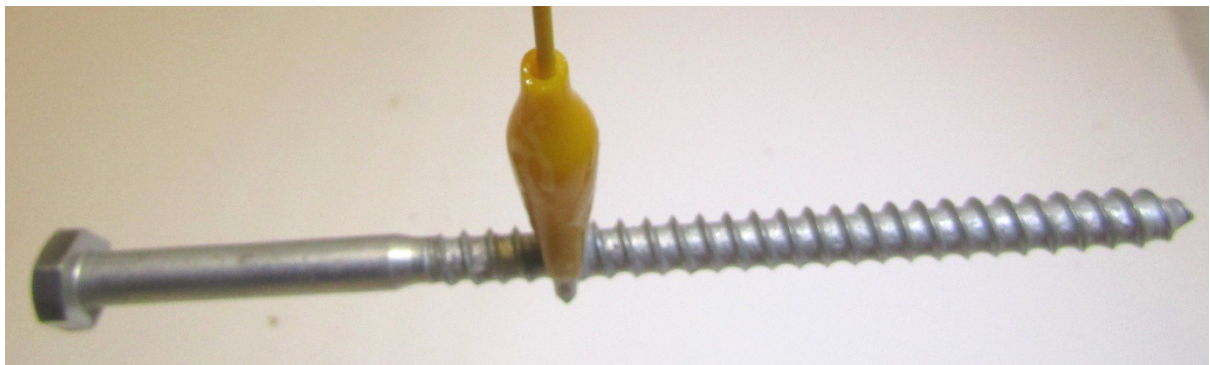


AVOID hanging the parts on wire, this is not a suitable method to supply an electrical connection to the parts. The anodes will turn black initially after plating, then will turn grey as more plating is carried out



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



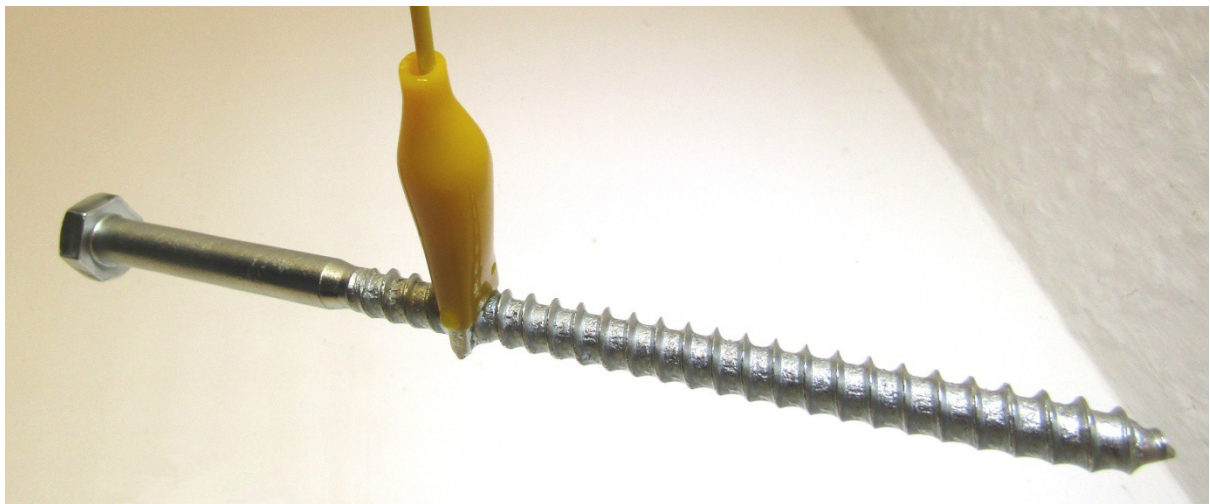
The plated and rinsed item is simply lowered into the blue passivate solution for 15 to 45 seconds

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**

