YELLOW CHROMATE PROCESSES

Chromating is a process used primarily on zinc plating, zinc die casting (pot metal), and cadmium plating. ‘Golden Cad' is really a cadmium plate that has been ‘chromated’ with a yellow chromate.

Zinc and cadmium are electroplates or metals which are readily attacked by mild acids, and will deteriorate rapidly, even if daubed lightly with tomato ketchup! To 'harden' the plate it is placed in a mild solution of special acid (Yellow Chromate or Drab Olive Green). This slightly attacks the plate, oxidizing it. The oxide forms a tough corrosion resistant crust, which protects the softer zinc or cadmium metal.

Chromates will only work on zinc die cast (pot metal), or parts previously plated with zinc, cadmium or Copy Cad. Prepare the part for chromating by zinc or 'Copy Cad' plating steel, or bead blasting pot metal. The plate needs to be in excellent condition, fresh and bright; otherwise defects will occur in the treatment. Do not handle the parts with your bare hands prior to dipping, as you will leave body oils in the form of fingerprints, which will show up on the finished item.

Old pot metal, (probably 25 years +) these parts need to have fresh metal exposed without any oxidation present. To achieve this on carburetors, blast clean with baking soda and then rinse off in fresh water before dipping. If the result is blotchy, then blast clean again, and zinc plate the part to provide an even, fresh layer of zinc over the part.
NB. Baking Soda dissolves in water and will therefore not clog any important carburetor ports.

When using the following process, it is important that the parts are rinsed thoroughly and they are allowed to dry overnight before handling.

Please note; the instructions on the label are correct for the contents.

Iridescent Yellow Chromate Process has an oily look to it, with ripples of yellows, blues and greens. It is commonly found on brackets, brake boosters and carburetors.

The Yellow Chromate Liquid is strongly acidic! Make sure you read the labels and MSDS before use!

Make up for YELLOW CHROMATE.

Add 12.5 L of DISTILLED WATER to a plastic tank
Add 125 mL of CHROMATE Solution. All of bottle.
OR Add 10 mL chromate per litre of water, one capful is 10 mL

Using the Yellow Chromate

The temperature of the solution operates best at 21 to 38 deg. C

Hang the part from a copper wire and water rinse,

Immerse the part in the solution for 5 seconds 60 seconds (or until the correct color is achieved) swirling it to agitate.

Remove and rinse in fresh water (Failure to do this will result in the part continuing to darken beyond the desired color).

Hot water dip [65 - 82 deg C]

Dry using a hair dryer no hotter than 60 deg C

NB the coating will rub off if it isn't completely dry.

Variations on the amount of chromate solution will achieve different effects. Less chromate will produce a light brass color and more will produce a dark bronze. Experiment!

When the process seems to no longer works effectively, discard [carefully] and make up a new batch.