

## Cobalt Electrolyte Guide

### Operating conditions and deposition data

Voltage range: 3.5 - 4.5 volts

Temperature: 18 - 40 °C

Electrode: graphite, nickel or platinum (see notes)

Cobalt content in the plate 99.9 % (rest carbon)

Deposition rate at (3.5 volts, carbon electrode) approx. 4 micrometers per minute (spot)

Hardness over 1,000 MPa (Vickers)

Density of deposition 8.9 g/cm<sup>3</sup>

Voltage Medium to high voltage

Special storage requirements None

Shelf life Over 1 year

Health and safety classification Harmful

Special instructions None

Transport (UN number) None: Not classified as dangerous for transport

### Notes:

We strongly discourage the use of stainless steel anodes for most of our coating processes.

Coating rates are calculated over a sample area permanently covered with a swab.

The cobalt plating solution produces a slightly bluer hue than nickel electrolyte.

## **Application:**

Plating is recommended on soft metals such as copper, bronze, brass as a hard barrier layer to prevent metal diffusion.

- Cable with handle and electrode and cloth pad in plus
- Minus cable attached to workpiece with crocodile clip and connection in negative pole

Electrode and cotton pad, soak well with the cobalt electrolyte  
Voltage: from 3.5 volts

Wear protective gloves and goggles

Application at room temperature is sufficient

Can be used in liquid or thickened form - thickening with our gel former possible

Use only distilled water for rinsing!

First polish the surface to a shine by hand or by machine.

Degrease surface with our electrocleaner

Activate 2.7 Volt

Apply cobalt by means of anode pad with light circular movements on the surface until a rich tone is formed.

No drying phase or similar necessary.

Rinse with water and polish to shine with a soft cloth and our care product!