

# **CONDORCOAT AL 91**

## **Nanotechnological passivating/conversion agent for multimetal**

### **Physical Chemical Datas**

Physical Estate	: liquid colourless
Working pH	: 6.0 -7.2
Chemical composition	: mixture of silicoorganofunctional compounds, zirconium salts, stabilizing agents and biocide.

### **Typical application**

CONDORCOAT AL 91 is chrome – free, non – phosphate liquid coating chemical used to produce on aluminium, steel, zinc and alloys a clear, nearly colorless, conversion coating. This conversion layer, when properly applied, has excellent paint adhesion properties and also supplies an excellent protection against corrosion.

CONDORCOAT AL 91, moreover, is used as final seal to be applied on surfaces after iron and zinc phosphating, in case high quality standards are required.

CONDORCOAT AL 91 is a harmless product and does not contain any heavy metal nor harmful substances and VOC.

### **Characteristics**

Product does not require any rinse and is used after cleaning or conversion processes to increase pretreatment performances.

### **Working paramethers**

#### Coating Bath Make – Up

20-30 lt CONDORCOAT AL 91 each 1000 lt of bath.

Add the product into water by keeping the bath in agitation since the solution is homoegeous. In order to get better results it is advisable to use deionized water.

### **Control parameters**

Product concentration	2-5 ml (as per the described analysis)
Temperature	ambient

Spray time	20 - 40 seconds
Immersion time	2 - 5 minutes
Working pH	6.0 – 7.2

### Parameters of the bath

The range of product concentration indicated in B-1 section is suitable for normal working conditions of pre painting lines. However particular characteristics of the plant such as speed of the line, spray time and length of pieces, can require different concentrations. Our technical department is available to define the proper parameters. The bath can't work for more than 6-8 weeks. Clean the tank before preparing the new bath.

### Bath maintenance

The amount of product additions for keeping the bath is carried out through two titrations as described here below:

#### A point determination

- Take 100 ml of bath and transfer them into a flask, add 6-7 drops of green bromocresol indicator
- Fill a cylinder with hydrochloric acid 0.1 N
- By stirring the flask add with a pipette, drop after drop, the solution of hydrochloric acid till change of colour from blue to yellow
- The used milliliters of hydrochloric acid are the A point

#### B point determination

- Take 100 ml of water used to fill the tank and transfer them into a flask, add 6-7 drops of green bromocresol indicator
- Fill a cylinder with hydrochloric acid 0.1 N
- By stirring the flask add with a pipette, drop after drop, the solution of hydrochloric acid till change of colour from blue to yellow
- The used milliliters of hydrochloric acid are the B point

The difference between A point and B point represent CONDORCOAT 91 point

1% = 1.6 ml HCL 0.1 N --- 3% = 4.7 ml HCL 0.1N --- 5% = 7.5 ml HCL 0.1 N.