



PT. SINAR CEMARAMAS ABADI

- VERCOPPER (ACID / CYANIDE COPPER)
- VERNICKEL
- VERCHROME
- VERZINC ACID / CYANIDE ZINC
- CLEANER (ELEKTRO / SOAK)
- PHOSPHATING
- CHROMATING
- ELECTROLESS NICKEL

FOR HIGHTECT ELECTROPLATING :

- ELECTROLESS NICKEL PLATING FOR ALUMINIUM AND ZINC DIE CAST, MAGNESIUM
- GOLD PLATING
- PTFE FORELECTROLESS NICKEL
- HARDCHROM
- SAND CAST ALUMINIUM ALLOYS PLATING
- MAGOXID – COAT FOR PROTECTING MAGNESIUM SUBSTRATES

- KEPLA – COATING FOR ALUMINIUM AND TITANIUM ALLOYS
- ELECTROLESS NICKEL PLATING WITH INTEGRATED SILICON CARBIDE PARTICLES (SIC)

- GLISS – COAT
A CLEAN SOLID FILM LUBRICATION FOR A MAINTENANCE FREE PERMANENT LUBRICATION OF ALL KIND OF FRICTION PAIRINGS
- SEPA – COAT
(ANTI ADHESIVE COATING AND ACTIVATOR) FOR THE REMOVAL OF PART FROM MOULDS

ISOCHROME 28 BLACK CHROMATING

1. DESCRIPTION

ISOCHROME 28 Black Chromate produces black chromate coatings with very good corrosion resistance values on electroplated zinc – and cadmium deposits. Under working conditions according to prescription, and taking notice of all the necessary corrections, values of corrosion resistance between 50 and 100 hours as per DIN – SS – 50`021 are possible.

2. BATH MAKE – UP FOR 100 LITRES

Deionized water	80 litres	
ISOCHROME Part 1	10 litres	to add under stirring
ISOCHROME Part 2	0.6 litres	to add as well under stirring and subsequently to fill up desired volume with deionized water.

3. WORKING CONDITIONS

Bath temperature : 20 – 30 o C Ideal value : 25 o C

Immersion Time : 30 seconds in new made – up and corrected baths

pH value : 0.7 for new made – up and corrected baths.

Agitation : air blowing – in is recommendable

Pre – treatment of goods prior to chromating

After good rinsing the part to be chromating, are dipped in acidified water

(1 – 2 l of H₂SO₄ per 1`000 litres)

Immersion time 5 – 10 seconds

Subsequently rinsing very well again !

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4. WORKING INSTRUCTIONS AND MAINTENANCE

ISOCHROME 28 gets exhausted by consumption as well as by dragging – in and dragging – out. Further on the pH – value of the solution rises and its density decreases. Results there of are indecent and brownish coatings. Cause is an inert working.

5. CORRECTION

- a) Prolongation of the immersion time from 30 to 45 and 60 seconds.
- b) Decreasing of pH-value to 0.7 and increasing of the concentration by addition of 10 % each of the bath make-up quantity of part I and part 2. It is essential to stir well.
- c) Increase of bath temperature to 30 o C and higher.

Olive colored and brown deposits are to be explained by impurities by chlorides (enhance the consumption of part 2), cyanides and nitrates. Then the following corrections are to be made :

- a) Determination of pH-value and its adjustment to 0.7 by addition of 10 % each of the bath make-up quantity of ISOCHROME 28 part 1 and part 2. If the content of CrO₃ is higher than 39 g/l, the pH-value can be lowered by careful addition of H₃PO₄ or H₂SO₄.
- b) Heating of the bath to 60 o C, mixing thoroughly during 5 minutes and afterwards cooling down again to 30 o C. In case that subsequently still not an uniform black coloring can be obtained, until to 4 ml/l of ISOCHROME 28 part 2 can yet be added.

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It is not necessary to agitate the solution during the chromating process. However, the bath should be well mixed thoroughly, every hour, by means of compressed air or by a plastic agitator.

After the chromating the goods get dripped off during 10 – 20 seconds. In order to avoid the well-known Grey stains, which can be formed in deepenings or on edges by drying drops of water, it has been well-approved to dip following in a standing rinsing. To the water for rinsing (tap water) 10 % of the old, resp. exhausted solution will be added. The immersion time in this subsequent immersion solution should be approx. 5 seconds. After this process get the parts 1 – 2 minutes dripped off. Adhering drops shall be blown off by means of cold compressed air. Ensuing the pieces get dried with hot-air, 60 o C, during 2 – 5 minutes.

6. CONSUMPTION OF ISOCHROME 28 PART 1 AND PART 2

With 100 l make-up ISOCHROME 28 Black Chromate solution approx. 650 – 700 m² of ware surface can be chromated. Small parts will rather be chromated in baskets, and after the following dipping in the 10 % subsequent dipping solution, they are first shortly cold slinged in the centrifuge. Hot drying shall be made only there upon.

The consumption of Part 1 and Part 2 is higher than for rack operation, caused by dragging out. With 100 l chromate approx. 200 – 250 m² of ware surface can be chromated black.

7. NECESSARY PRODUCTS FOR OPERATION OF ISOCHROME 28 :

ISOCHROME 28 Black Chromate Part 1

ISOCHROME 28 Black Chromate Part 2

Sulphuric-or phosphoric acid for adjustment of pH value

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8. WASTE WATER

ISOCHROME 28 Black Chromate contains hexavalent compounds of chrome. All waste water must be treated as law requires before being admitted to the public canalization.

9. SAFETY PRECAUTIONS

During handling and operation with black chromatings the necessary protective clothing are to wear, in order to avoid any contact with skin or eyes.

These working instructions are based on laboratory values and practical experiences.

We have however no influence on the precise and conscientious use of our products.

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