



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

HR 48

Trivalent Temper Resistant Chromate Passivation with High Corrosion Resistance

1. DESCRIPTION

The HR 048 is a new trivalent chromate process that produces glossy light iridescent green colour finish on zinc and alloy plated surfaces. The coating has a high stability while tempered at 200 °C in terms of loss of brightness or color. The coating obtained provides corrosion resistance without the presence of hexavalent Chrome.

The HR 048 is supplied in easy to use liquid concentrates.

2. SOLUTION MAKE - UP

	Range	Optimum
HR 048 (density = 1.42 g/mL)	140 – 160 mL/L	150 mL/L
pH	1.3 – 1.6	1.5
Temperature	25 – 35 °C	30 °C

The higher the concentration and temperature of the solution, the lower will be the immersion time.

Head Office :

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a) Procedure for a make up of 100 litres

Take 50 L DI water in the process tank. Add 15 L HR 048 and adjust the volume to 100 litres. Mix well. Adjust the pH with diluted nitric acid (or increase with a 10 % solution of sodium bicarbonate) and temperature of the operating bath to specified values. Now the bath is ready for operation.

3. SAFETY CONSIDERATIONS

Protective gear such as face shields and gloves should be worn during bath make up and operation. Chemicals shall not be stored below 10 °C.

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4. Operating conditions

- a) Temperature: 25 – 35 °C (optimum 30 °C)
- b) Time: 45 – 60 sec.
- c) pH – Value: 1.3 – 1.6 (optimum 1.5). Frequent control is recommended.
pH ≤ 1.2: decrease of the corrosion protection
pH ≥ 1.7: yellowish appearance, decrease of the corrosion protection
- d) Agitation: Air or parts movement
Do not use lead as weight for air blowing tuber!
- e) Fume extraction: Recommended
- f) Equipment: Mild steel tank with polypropylene lining
- g) Heating: Not required or Teflon tube heaters
- h) Pre dip activation: This improve the HR 048 bath life as well as the adhesion and corrosion resistance. The tank make up is 0.3 – 1.0 % nitric acid. Frequent tank changes are necessary for uniform production quality.
- i) Hints: We recommend a hot DI water rinse (50 °C, 3 – 5 min.), after treating with HR 048 and after a drag out rinse and a DI water rinse.

5. EFFLUENT CONTROL

The HR 048 chromate conversion coating solution is acidic and contains trivalent chromium salts. Spent solution has to be treated and discharged according to local waste water laws.

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6. GUARANTEE

The technical information and recommendations in the operating instruction are based on practical testing and are reliable, but are given without warranty or guarantee. The use of our products might vary according to local conditions and materials processed. We reserve the right to change or amend the operating instruction based on technological advances.

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