HAVACOAT Z-26
YELLOW IRIDESCANT CHROMATE PROCESS

HAVACOAT Z-26 provides a clear, yellow iridescent or bronze corrosion resistant chromate coating.

HAVACOAT Z-26 finish is resistant to the formation of white corrosion products and has excellent paint base characteristics.

HAVACOAT Z-26 is easy to control either by visual inspection of chromated parts or by simple titration.

HAVACOAT Z-26 works equally well in both rack and barrel plating lines.

HAVACOAT Z-26 provides superior adhesion compared to other yellow iridescent chromates.

HAVACOAT Z-26 brightens and polishes as it forms chromate coating.

OPERATING INSTRUCTIONS:

BATH PARAMETERS

Yellow Iridescence	Range: 1 to 4% by volume Recommended: 1.5% by volume Dip Time: 5 to 15 seconds
Bronze	Range: 1 to 4% by volume Recommended: 3% by volume Dip Time: 20 to 30 seconds
Temperature:	65° - 90° F
Agitation:	Air or mechanical agitation recommended
pH:	1.3 to 2.0

NOTE: Immersion times can vary depending upon the concentration and the age of the chromate.

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PROCESS MAINTENANCE:

During normal operation, the concentration of **HAVACOAT Z-26** is gradually diminished and the color obtained on the parts become lighter. The addition of about one tenth to one fifth the initial make-up amount of **HAVACOAT Z-26** will restore the proper color.

Example:	Maintenance addition for a 1,000 gallon tank	
	Initial Make-Up:	15 gallons **HAVACOAT Z-26**
	Maintenance addition	1.5 to 3 gallons **HAVACOAT Z-26** after color drops off.

ANALYSIS:

Optional Titration Method for Determining Concentration of **HAVACOAT Z-26**:

1. Pipette 2 ml sample of the working solution into a 250 ml beaker.
2. Add 10 mls 50% Hydrochloric Acid.
3. Add 10 ml of a 10% Potassium Iodide Solution.
4. Titrate with 0.1N Sodium Thiosulfate to a pale straw color.
5. Add 1 - 2 mls of Starch Indicator.
6. Continue the titration until solution is clear.
7. Record total volume of 0.1N Sodium Thiosulfate used.

Calculation:

Total mls 0.1 N Sodium Thiosulfate X 0.6 = % by/vol **HAVACOAT Z-26**

OPERATING NOTES:

Due to the build-up of contaminants and reaction products, periodic dumping of the bath is suggested. Naturally, the frequency will vary due to the drag-in/drag-out rate, condition of rinses, and work-load.

After adjusting the **HAVACOAT Z-26** bath to the optimum concentration, the pH should be measured with an electrometric pH meter. pH should be maintained within a 0.1 - 0.5. increment range. pH may be lowered, if required, by the addition of nitric acid. 1 pint of nitric acid 42° Be per 100 gallons of bath will lower the pH approximately 0.1 pH unit. pH may be adjusted up with dilute caustic soda.

Rinses and spent solutions of **HAVACOAT Z-26** should be treated to reduce hexavalent chrome. Sulfur Dioxide or Sodium Metabisulfite may be used to accomplish this. Solutions should then be neutralized to pH 7.5 - 8.5 to precipitate Chromium. Filtering, centrifuging or prolonged settling will allow the reduced chrome compounds to separate. Consult with authorities for local, state, and federal waste disposal requirements.

EQUIPMENT:

Polyethylene, stainless steel Tygon or Koroseal - lined tanks are suitable for holding the **HAVACOAT Z-26** solutions.

HANDLING AND STORAGE:

CAUTION: HAVACOAT Z-26 is a strong acidic liquid containing chromium compounds. Handle with care. Wear protective glasses or face shield, rubber gloves and apron. If spilled on skin, flush with water. Consult a physician if pain or irritation develops. For eye contact, flush with cool water for 15 minutes and obtain immediate medical attention.

STORAGE: HAVACOAT Z-26 contains oxidizers. Contact with wood, paper, rags, organic materials (especially solvents) may cause spontaneous combustion or render these materials dangerously flammable.

NON-WARRANTY:

The data contained in this bulletin is believed by Haviland Products Company to be accurate, true, and complete. Since, however, final methods of use of this product are in the hands of the customer and beyond our control, we cannot guarantee that the customer will obtain the results described in this bulletin, nor can we assume any responsibility of the use of this product by the customer in any process which may infringe the patents of third parties.