Hallcoat TYD
Liquid Dye

Description

Hallcoat TYD is a yellow liquid dye used to deposit a color on a blue passivate film. This dye has an easy application process and a wide range of operation and very accurately mimics the color of a hexavalent yellow chromate film. **Hallcoat TYD** is used in conjunction with the **Hallcoat T** family of trivalent passivates to provide either a single dip process or a two-step dip process. The product is RoHS compliant.

BENEFITS

- Produces a color of a hexavalent chromium film.
- Can be used as a single dip process.
- Does not affect corrosion protection of the chrome passivate.
- Excellent adhesion to the substrate.

OPERATING CONDITIONS

1-step process:

1. Plate
2. Rinse
3. Nitric acid dip
4. Rinse
5. Hallcoat T series passivate and **Hallcoat TYD**
6. Rinse
7. Dry

Operating Parameters:

Hallcoat T100 concentration	2-7% by volume
Hallcoat TYD	1-4% by volume
pH	2.0-2.6
Immersion time	30-100 seconds
Temperature	75-125°F
Agitation	Strongly recommended

Concentration of the dye in the solution is dependent on the immersion time. As the immersion time decreases, the dye concentration will need to increase in order to ensure proper adhesion.

• P.O. Box 790 • Waterbury, CT 06720-0790 • Tel: (203) 756-5521 • Fax: (203) 756-9017
• P.O. Box 969 • Inman, SC 29349-0969 • Tel: (864) 472-9031 • Fax: (864) 472-2117
• www.hubbardhall.com • info@hubbardhall.com

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2-step process:

1. Plate
2. Rinse
3. Nitric acid dip
4. Rinse
5. Hallcoat T series passivate
6. **Hallcoat TYD**
7. Rinse
8. Dry

Operating Parameters:

	Hallcoat T100	Hallcoat TYD
Concentration	2-7% by volume	1-4% by volume
pH	1.8-2.4	3.0-4.5
Immersion time	30-100 seconds	30-100 seconds
Temperature	75-125°F	75-125°F
Agitation	Strongly recommended	Strongly recommended

MAKE-UP PROCEDURE:

1-step process:

1. Add water to half the capacity of the tank.
2. Add the needed amount of Hallcoat T series, mix well and adjust the pH to operating range if out of spec. Use nitric acid to lower pH and sodium hydroxide diluted to raise the pH.
3. Add **Hallcoat TYD** in needed amount.
4. Fill with water to capacity and mix well. Re-check the pH to ensure it is within specified range.

2-step process:

1. Add water to half the capacity of the tank.
2. Add the needed amount of **Hallcoat TYD**.
3. Fill with water to capacity and mix well. Check the pH to ensure it is within specified range. To lower the pH, use Hallcoat T series. Using nitric acid is not recommended. To raise the pH use diluted sodium hydroxide.

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Product Code: 2422002
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WARRANTY

THE QUALITY OF THIS PRODUCT IS GUARANTEED ON SHIPMENT FROM OUR PLANT. IF THE USE RECOMMENDATIONS ARE FOLLOWED, DESIRED RESULTS WILL BE OBTAINED. SINCE THE USE OF OUR PRODUCTS IS BEYOND OUR CONTROL, NO GUARANTEE EXPRESSED OR IMPLIED IS MADE AS TO THE EFFECTS OF SUCH USE, OR THE RESULTS TO BE OBTAINED.

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