PRODUCT DATA

HOUGHTO COAT A-701 (POLYTOXAL PCF 701)

NO RINSE, CHROME-FREE CONVERSION COATING

DESCRIPTION

HOUGHTO COAT A-701 (POLYTOXAL PCF 701) is a no-rinse chrome free passivation system specifically formulated for aluminum and aluminum alloys, which gives a uniform and even conversion layer. The system can be used for both spray and cascade in vertical lines and dipping applications. It offers an adhesion base and protection against corrosion prior to powder coating and lacquering. A good preparation of metal surface (degreasing and etching) is essential for conversion coating. Pretreatment can be done in acid resistant tanks.

Features	Benefits
• Easy to use	• **HOUGHTO COAT A-701 (POLYTOXAL PCF 701)** can easily be metered into bath
• Chrome Free	• Free of hazardous chromic acid
• Promotes excellent conversion coating quality	• Provides for excellent activity on the aluminum surface
• Proven technology	• Awarded European Qualicoat Approval

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OPERATING PARAMETERS

INITIAL MAKE UP

Concentration: 1% volume ***HOUGHTO COAT A-701 (POLYTOXAL PCF 701).***

- Clean the tank thoroughly.
- Fill the tank to two-thirds of its final volume using demineralized water.
- Add required amounts of ***HOUGHTO COAT A-701 (POLYTOXAL PCF 701).***
- Fill the tank up to its final volume and continue stirring. Filtering is recommended.
- Check the pH and adjust by ammonia to 2.5 if necessary.
- Bath is ready to use when temperature is between 77 – 105^{o}F

WORKING CONDITIONS

Bath concentration	0.75 – 2.0 % volume
Temperature	77 – 105^{o}F
Treatment time	1 – 2 minutes
Spraying time	60 – 120 seconds
Injection pressure	0.5 – 1.5 bar
pH	2.5 – 3.5
Drying temperature	176 – 212 ^{o}F

APPLICATION

Prior to conversion coating, all parts must be degreased, etched and rinsed in demineralized water. The conversion coating bath concentration should be kept between 0.75 – 2.0% volume by replenishing with ***HOUGHTO COAT A-701 (POLYTOXAL PCF 701)*** according to analysis. pH should be adjusted to 2.5 – 3.5 by ammonia or ***HOUGHTO COAT A-701 (POLYTOXAL PCF 701)*** when necessary**.** After passivation bath, parts can be dried without any rising and then put into drying oven. Drying can be done in ovens with temperature range from 176 – 212 ^{o}F.

Maintenance of the bath working bath can be controlled by an analysis of the concentration of ***HOUGHTO COAT A-701 (POLYTOXAL PCF 701).***

SOLUTION CONTROL

Equipment:

250 mL beaker
100 mL graduated cylinder
50 mL burette and stand

Reagents:

0.1 N Sodium Hydroxide Solution
Bromophenol Blue Indicator Solution

Procedure:

1. Add 100 mL of the cooled bath into a 250 mL beaker.
2. Add 10 drops of bromophenol blue indicator solution.
3. Titrate with 0.1 N Sodium Hydroxide Solution until the color turns violet.
4. Record the number of mL of 0.1 N Sodium Hydroxide Solution used.

Calculation:

HOUGHTO COAT A-701 (POLYTOXAL PCF 701) = mL of 0.1 N Sodium Hydroxide X 0.35

EQUIPMENT

Tank and Heating	***HOUGHTO COAT A-701 (POLYTOXAL PCF 701)*** is compatible with materials used for any standard paint line bath. Recommendation is for 316 stainless steel for all structures and equipment that is in contact with the working bath.

STORAGE/HANDLING/DISPOSABILITY

Always read the Material Safety Data Sheet for any chemical product to ensure familiarity with the methods of safe handling and the health hazards associated with the product.

WARRANTY

The data contained in this bulletin is believed by Houghton Metal Finishing Company to be true, accurate and complete. No warranties are expressed or implied since the use of our products is beyond our control. Statements concerning the use of Houghton products are not to be construed as recommending the infringement of any patent.