

# ACCU-LABS INC.

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**A2LA Accredited ISO/IEC 17025:2005 Certificate # 2558.01**

## **ALCOR 570 ALUMA SEAL**

**ACCU-LABS ALCOR 570 ALUMA SEAL** is a proprietary compound for the sealing of anodized aluminum. It will seal both in clear and colored anodized aluminum in 2 to 10 minutes, is smut free, and superior to nickel acetate.

**ACCU-LABS ALCOR 570 ALUMA SEAL** can be used with tap water up to 18 grain hardness at a temperature of 165°F. for the optimum results. **ACCU-LABS ALCOR 570 ALUMA SEAL** should be used at a concentration of 1/2 ounce per gallon and without air agitation. **ACCU-LABS ALCOR 570 ALUMA SEAL** provides a longer bath life than nickel acetate solution. Additions of **ACCU-LABS ALCOR 570 ALUMA SEAL** should be added daily to compensate for drag-out. (About 1% of initial charge should suffice.)

The continuous filtration of the seal tank is recommended (1-10 micron). This allows working with clear solution at all times which further extends the sealing solution life. **ACCU-LABS ALCOR 570 ALUMA SEAL** was developed to eliminate smut conditions noted when dark shades and black colors are required on anodized aluminum.

Under actual field tests, **ACCU-LABS ALCOR 570 ALUMA SEAL** produced an anodizing seal, better corrosion, abrasion, and wear resistance than the conventional acetate sealing.

This product is very effectively used for architectural anodized aluminum products as well as for general manufacturers who are highly quality conscious.

## **ADVANTAGES OF THE ACCU-LABS ALCOR 570 ALUMA SEAL**

1. Smut eliminated or greatly reduced
2. Will seal in 2 to 10 minutes
3. Will seal both clear and colored aluminum
4. Longer solution life
5. Significant energy savings have been realized
6. Up to 1,000 hours Salt Spray 5% Sodium Chloride Corrosion Test
7. Meets Mil-A-8625 Specifications.

## **SOLUTION CONTROL**

Concentration                      ½ to 1 ounce per gallon of good quality water

Temperature                        165 to 170°F

Additions                         1% of initial charge per day

Examples: 1000 gallon tank would need ½ ounce per gallon or 30 pounds. Daily additions would be 1/3 to ½ pound per day.

## **FOR OPTIMUM RESULTS USING ALCOR 570 ALUMA SEAL**

1. Good rinsing is a must after the anodizing tank. Air agitation is recommended.
2. pH of final rinse tank must be maintained at pH 6.2 to 6.5 to neutralized sulfates prior to seal tank. Ammonium carbonate is recommended to control the pH of final rinse tank.
3. Sealing temperature of 165 to 170°F for 2 to 10 minutes.
4. After sealing, deionized rinse is recommended to eliminate water spotting and stains.
5. Smut may appear on some alloys of aluminum after the seal tank has become saturated. An extra addition of **ALCOR 570** may help to eliminate this condition; if problem persists decanting or change out may be required.
6. Maintain pH of seal tank at 6.2 to 6.5. Control with dilute acetic acid or dilute ammonium.

7. The use of continuous filtration (1-10 micron) of the seal tank is recommended. This allows working with clear solution at all time which further extends the sealing life solution.

## **SOLUTION ANALYSIS**

TITRATION REAGENTS:            Triethanolamine  
   Ammonium (Concentrated)  
   Murexide Indicator  
   0.1 molar EDTA (37.2 gm/1)

1. Use 100 ml sample of #570 ALUMA SEAL solution in titration flask.
2. Add 10 ml triethanolamine (TEA) to solution
3. Add 10 to 15 ml of ammonia.
4. Add approximately ½ gram murexide indicator mixture.
5. Titrate with 0.1 M EDTA from brown-orange color to deep purple endpoint.

Calculation: ml of EDTA used on titration x .087 = oz/gal. #570  
ALUMA SEAL

REAGENTS:                    EDTA 37.2 gm/a of sodium (DI)  
   ethylenediaminetetraacetate = 0.1M solution.

Murexide: 0.25 gm murexide indicator mixed with 250 gm  
ammonium chloride NH<sub>4</sub>Cl.

TEA: Use laboratory grade.

**HANDLING CONSIDERATIONS:** Use personal protective gear including eye protection when using this product or its solutions; read MSDS prior to using this product.

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