



AN365L ANODIZING ADDITIVE

Description

Stone AN365L is a proprietary anodizing additive designed to allow the operation of the anodizing bath at a higher current density.

Product Advantages

Stone AN365L is an anodizing additive that offers the following performance advantages:

- Increased production throughput
- Saves energy via shorter anodizing time
- Increases anodic film uniformity and hardness
- Allows wider operating temperatures
- Eliminates product "burn" - conductivity of bath is higher which eliminates high current density areas around contact points
- Reduces rate of aluminum buildup - shorter time in anodizing tank for a given thickness
- Less frequent decants - lower aluminum buildup
- Lower chemical and waste treatment cost - due to less frequent decants
- Mist suppressor - can cut down on agitation amount
- Wider usage range of H₂SO₄ 150-220 g/L - reduces dumping

Initial Tank Makeup

CONCENTRATION 1.5 to 3% by volume Type II
 3 to 5% by volume Type III
 TEMPERATURE 50 to 80° F (± 1° F) Type II
 32 to 50° F (± 1° F) Type III
 pH* 2
 WATER D.I. or tap water
 SULFURIC ACID 130 to 180 g/L (165 g/l
 ALUMINUM CONTENT Up to 20 g/L Type II
 Up to 12 g/l Type III

* Note: If pH meter does not have ATC, be sure to calibrate & test pH at the same temperature.

Maintenance

Recharge to required level per titration procedure.

Titration Procedure

REQUIRED EQUIPMENT:

- | | |
|---------------|------------------------------|
| 400 mL beaker | 1 L volumetric flask |
| 25 mL pipette | Glass boiling beads |
| 50 mL burette | Magnetic stirrer & hot plate |

REQUIRED REAGENTS:

- 0.1N Ferrous Ammonium Sulfate (FAS)
- 50% Sulfuric Acid
- 0.025M Ferroin Indicator
- 0.1N Ceric Sulfate Solution

Procedure A – Standardization of FAS Reagent

1. Pipette 25 mLs of 0.1N ferrous ammonium sulfate into a 400 mL beaker.
2. Add 100 mLs of distilled water.
3. Add 25 mLs of 50% sulfuric acid.
4. Add 4 drops of ferroin indicator and titrate with 0.1N ceric sulfate solution until the red color disappears.
5. Calculate:
$$\text{Factor ("F")} = \frac{\text{mLs of ceric sulfate required}}{25}$$

Procedure B – Titration Procedure for AN365L

1. Pipette 25 mLs of the anodizing bath solution into a 1 liter volumetric flask.
2. Add distilled water to the 1000 mL mark; stir well.
3. Pipette 25 mLs of the above solution into a 400 mL beaker.
4. Add 25 mLs of 50% sulfuric acid.
5. Using a pipette, add exactly 25 mLs of 0.1 ceric sulfate solution.
6. Add 2-3 glass boiling beads and boil 10-15 minutes (*this is critical*).
7. Cool and add distilled water to the 200 mL mark.
8. Add 3 drops of ferroin indicator and titrate to a red endpoint with 0.1N FAS.
9. Record mLs of FAS as "A."
10. Calculate:
$$\% \text{ by volume AN365L} = \frac{25 - (A \times F)}{4.0}$$

Packaging

Stone AN365L is offered in 55-gallon drums.

Storage Temperature

WARNING: Do not store below 50° F (10° C) -- may affect product performance.

FOB - Addison, Illinois, USA

Warranty & Disclaimer

Stone Chemical Company makes no warranty, expressed or implied, concerning this material except that it conforms to the chemical description on the label. Neither Stone Chemical Company nor the seller shall be held responsible, in any manner, for any personal injury or property damage, or other type of loss, direct or consequential, resulting from the handling, storage or use of this material. The buyer assumes all risk and liability therefrom and accepts and uses the material under these conditions. Materials shall not be returned to the seller or manufacturer without written permission. There is a 25% restocking charge.