

Anti-nickel Allergy, Environment-Compatible

MLS238 SEALER

(NICKEL FREE Sealing Agent for
Anodized Aluminum Coating)

MLS238 SEALER

'MLS238 SEALER' is a Nickel Free liquid type sealing agent developed as sealing chemical for anodized aluminum which are dyed, electrolytic coloring and/or electrolytic pigmented. Use the sealing agent for case/enclosures of electronic devices and parts of household general goods as anti-nickel allergy solution.

Features

1. It is a product that prevents the risk of developing nickel allergy as the product does not contain nickel as other sealing agent containing nickel.
2. Environmental friendly product as no other heavy metals are contained and enables easy waste water treatment.
3. Sealing effects are equivalent to nickel base sealing agents.
4. It can be used under the same condition as nickel based sealing agents.
5. Treatment with deionized water is recommended, however, similar results can be expected with tap-water as well.

Bath Makeup Procedure

1. Prepare bath at a ratio of MLS238 SEALER 40ml/L: Deionized water 1L.
2. It is pre-adjusted at approx. pH5.6 when deionized water is used for bath.
(When using tap-water, the tap water should be adjusted at approx. pH5.6 using diluted acetic acid)
3. When in use, it should be lightly agitated or filtered by circulation, if at all possible.

Operating Condition

	Optimum	Range
Concentration	40ml/l	30-50ml/l
pH	5.6±0.2	5.0-6.0
Temperature	92 °C	80-95 °C
Duration of Time	10 mins	5-20 mins

Bath Control

Concentration

1. Although high concentration increases corrosion resistance and level of sealing, excessive concentration may increase the risk of discoloration of certain dyed colors, deposition, powdering and stains.
2. The sealing performance deteriorates as the concentration degrades. Replenish proper amount of MLS238 SEALER.

pH	<ol style="list-style-type: none"> If pH becomes lower than 5.0pH, the sealing performance may deteriorate. Add ammonia water to adjust pH. If pH becomes over 6.2pH, the corrosion resistance and level of sealing is increased. However as the sealer liquid may get muddy and chance of forming deposition and powdering may increase, add diluted acetic acid to adjust pH.
Temperature	<ol style="list-style-type: none"> In general, corrosion resistance and level of sealing increase at higher temperatures, however the sealer bath becomes muddy and forms deposition and powdering as well as stain. At temperatures below 80 °C, the characteristics of the sealing film may be altered and might not be able to get enough sealing performance, which could be the cause of defectiveness.
Time	In general, longer duration of time increases the corrosion resistance and level of sealing. However, the increase ratio becomes slow after 20 minutes.
Others	<ol style="list-style-type: none"> Water-wash before sealing treatment should be done swiftly and thoroughly. After sealing, do not touch the treated surface until it is completely dried. If bath liquid is used continuously for a long time, it becomes muddy and may form deposition being contaminated by pretreatment liquid. The lifetime of bath liquid may be prolonged by filtering and purifying. (Do not use activated carbon) The sealing agent should be used within the scope of condition and do not mix with other sealing agents.

Analysis Method

- Sample 50ml of sealer liquid from sealer tank and filter with active carbon.
- Sample 10ml of the above with a transfer pipette to a 300ml conical flask and add 100ml of deionized water.
- After adding pH10 ammonia - ammonium chloride buffer solution 2ml, add a small amount of EBT indicator.
- Titrate 1/100M EDTA (ethylenediaminetetraacetic acid). The end point is where the color of the liquid turns blue from reddish purple.
- Replenishment amount of MLS238 SEALER should be calculated as follows.

$$\text{Shortage} \quad : A(\text{ml/L})=10 \times \text{titre}(\text{ml}) \times f \quad f: 1/100\text{M EDTA factor}$$

$$\text{Replenishing amount: } B(\text{ml})=(40-A) \times \text{treatment tank size (L)} \quad \text{Replenish MLS238 SEALER}$$

Applications

- Interior goods, decorative items, etc.
- Products emphasizing base material patterns
- Electronic parts, clocks, camera parts
- Wide applications for other items.

Package

MLS238 SEALER 20L Plastic container



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