

Prime Chemicals-Pakistan

PC Al-100 Cold Aluminum Sealing

Properties

- Liquid, slightly acidic
- Causes very good corrosion resistance
- Works very economical at low temperatures, due to lower heating costs compared to hot water sealing
- Stand out due to short application time
- Fulfils the current quality specifications of:
 - dye spot test (DIN EN 12373-4)
 - loss of mass test (DIN EN 12373-7)

Application

Make-up value:	Al-100 100 ml/l (in deionised water)
Analytical values:	Al-100 80-120 ml/l
Free fluoride	500-800 mg/l
Application time:	0.8-1.2 min/ μm
Temperature:	Ambient (Preferred 28-32 °C)
pH-value:	5.5-5.9
Agitation:	Air injection for make-up preparation and replenishment The sealing reaction itself needs no air circulation. Air injection is only recommended for the thoroughly mixing of the bath solution during make-up preparation or replenishment.
Tank:	Polypropylene (PP), polyvinylchloride (PVC), glass fibre reinforced plastic GRP) or stainless steel tanks (alloy 1.4571)
Heating:	Required (during winter)
Exhaust:	Not required
Filtration:	Necessary: 0.5-1 time the total bath volume per hour, pore size: 5 μm In order to remove dragged-in suspension particles, an appropriate filter pump should be installed.

Note:

Clean used tanks thoroughly before sealing.
Use deionised water for make-up (max. conductivity 100 $\mu\text{S}/\text{cm}$)

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Maintenance and Analysis

Sealing is one of the most sensitive processes in the whole anodising plant and therefore daily maintenance is essential.

Thus, it is absolutely necessary to carry out the following instructions:

- Check the pH-value once per shift and adjust with diluted ammonia solution resp. with diluted acetic acid
- Analyse the concentrations at least once a day and replenish if necessary

The consumption depends heavily on the drag-out.

The following values per m² can be taken as estimated average consumption:

Al-100 Replanisher 35-45 ml

Sample Preparation

Take a sample at a homogeneously mixed position

Reagents: 0.01 mol/l EDTA solution (Titriplex III)
ammonia solution (25 %, p.a.)
indicator: murexide (1 %: 1 g grinded up finely with 99 g NaCl)

procedure:

1. Pipette 5 ml bath sample into a 300 ml Erlenmeyer flask.
2. Dilute to approx. 100 ml with deionised water.
3. Add 10 ml concentrated ammonia solution (25 %).
4. Add a spatula tip of indicator (colour changes to yellow).
5. Let react for one minute.
6. Titrate with 0.01 M EDTA until the colour turns to purple.

calculation: consumption in ml · 6.47 = ml/l Al-100

Guarantee

Our guarantee extends to the continuous quality of our products as they leave our factory and not to their usage in the field. Our technical service will be pleased to answer any question you may have concerning operation and use of our products:

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