

DeSmut AL

Aluminium DeSmut

INTRODUCTION

De Smut AL is a non-nitric based process designed to completely remove oxidation layers and smut formation during the pre-treatment of Aluminium and Aluminium alloy based substrates. DeSmut AL provides excellent solution stability and oxidation uptake resulting in high production yields and low cost in use. DeSmut AL is thoroughly free rinsing and stabilised against attack of the Aluminium substrate.

BENEFITS

- High oxide and smut capacity providing excellent production yields.
- Fast acting.
- No attack on aluminium substrate

SOLUTION MAKE -UP

DeSmut AL	110g/L
Water	to Volume

OPERATING DATA

Concentration	90 – 120g/L
Temperature	18 – 30°C
Time	30 seconds - 1minute

EQUIPMENT

Tanks	Mild steel, Polypropylene, Polyethylene, Unplasticised PVC, Titanium
Heaters	Teflon coated, PTFE or Titanium with thermostatic control.



INSTALLATION

Equipment to be used for DeSmut AL should be cleaned thoroughly before any product is added.

If in any doubt as to the cleaning procedure contact PMD Technical Department.

1. Half fill the equipment with clean water.
2. Add, with constant stirring, the required amount of DeSmut AL.
3. Continue stirring until dissolved.
4. Make up to correct volume with clean water.
5. Mix well and heat to operating temperature.

PROCESS SEQUENCE

The following is a typical process sequence for cleaning aluminium which has been shown to give excellent results. If in any doubt as to the correct process sequence, contact PMD Technical Department.

1. Soak Clean, Cleaner 505.
2. Rinse.
3. Etch.
4. Rinse.
5. DeSmut AL
6. Rinse
7. Rinse
8. Continue dependent on application

MAINTENANCE AND CONTROL

The solution should be regularly analysed and replenished as necessary.

ANALYSIS METHOD

DeSmut AL

Reagents

0.2N Ferrous ammonium sulphate.

(a) Dissolve 19.6g ferrous ammonium sulphate in 100ml of DI water.

(b) Add 35ml of ortho-phosphoric acid.

(c) Transfer to a 250ml volumetric flask, with washing, and make up to the mark with DI water.

0.1N Potassium permanganate (standard volumetric solution)

Method

1. Pipette 25mls of ferrous ammonium sulphate into each of 2 x 250ml conical flasks, labelled A and B respectively.
2. Pipette 2mls of working solution into conical flask B.
3. Add approximately 50mls of deionised water to both flasks.
4. Leave to stand for 5 minutes.
5. Titrate both flasks with 0.1N potassium permanganate to the first permanent faint pink colour.
6. Record titres as Flask A = A mls, Flask B = B mls

Calculation

$(A-B) \times 6.5 = \text{g/L DeSmut AL}$

DISPOSAL

Dispose of in accordance with local authority requirements.

PRODUCT FAMILIES

The following products are referred to in this data sheet.

PRODUCT NAME	PRODUCT NUMBER
DeSmut AL	220002

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