



TARGET AL62

Alkaline Aluminium Etchant

INTRODUCTION

TARGET AL62 is a 100% active alkaline etchant containing chelating agents and an inhibitive grain refining agent. A stable low foaming surfactant is also incorporated to form a foam blanket to minimise spray from the gassing action.

TARGET AL62 produces a uniform satin etch on aluminium alloys to give a variety of decorative finishes which can be readily controlled to a given standard by varying the temperature and/or concentration. The combination of chelating agents used prevents the conversion of sodium aluminate into insoluble aluminium oxide, commonly referred to as scale or sludge. This complexing of the dissolved aluminium, even under extreme conditions, will only produce a very fine, non-adherent precipitate which can be easily hosed away from heating coils and tank sides.

BENEFITS

- 100% Active.
- Low maintenance costs - any precipitated aluminium can be quickly and easily hosed away.
- Economical operation - due to the extremely low degree of sludge formation, solution life is appreciably extended.
- Controlled etching action - consistent etch patterns are obtained regardless of solution age, enabling work to be processed on a fixed time cycle.
- Free Rinsing.
- Stable foam blanket - minimises spray and reduces need for fume extraction.
- Decorative etching prior to anodising.
- Combined cleaning and etching.
- Flaw detection in casting, etc.
- Durable finishes on architectural aluminium.

OPERATION

Where oxide and soils are heavy and uneven, it is usually preferable to pre-clean prior to etching. For this purpose, the use of either TARGET ALCO or TARGET G.P. is recommended so that the subsequently etched surface is perfectly uniform.



OPERATING CONDITIONS

Concentration	12.5-100 g/l (2-16 oz/gal)
Temperature	16 - 88 °C (60 -190 °F)
Process Time	30 seconds to 15 minutes
Equipment	Mild steel tanks with side heating and sludge outlet at base of tank. Fume extraction is not normally necessary.

TYPICAL PROCESS SEQUENCE

1. Clean - TARGET ALCO for two minutes.
2. Cold water rinse.
3. Etch - TARGET AL62 50g/l (8 oz/gal) 71 °C (160 °F) two minutes.
4. Cold water rinse.
5. De-smut - TARGET AB42 or 50% Nitric Acid, room temperature 20 seconds.
6. Rinse.
7. Anodise.

PROCESS CONTROL

TARGET AL62 operates efficiently throughout a wide range of production conditions. The required finish for a specific immersion time can be obtained by varying the temperature and concentration. Once the ideal conditions have been established, the concentration can be checked according to the following simple analysis method:

ANALYSIS

TARGET AL62 content - Titrate a 5ml sample of solution with N/10 sulphuric acid until the solution becomes permanently cloudy. Each ml of N/10 acid is equal to 0.93 g/l (0.15 oz/gal) of TARGET AL62. For new solutions titrate using Bromo-phenol-blue indicator. Each ml of acid is equal to 0.93 g/l (0.15 oz/gal) of TARGET AL62.

ALUMINIUM CONTENT

Where poor rinsing is encountered due to increased viscosity of solution, a portion of the solution should be discarded. For guidance, to retain maximum non-sludging characteristics, the specific gravity of the solution at 54 °C (130 °F) should not exceed 1.2.



HANDLING AND SAFETY PRECAUTIONS

TARGET AL62 is highly alkaline. When handling, avoid contact with eyes and skin, wash well with copious quantities of water followed by Boric Acid/Saline solution. Seek immediate medical advice after the irrigation procedure. Launder contaminated clothing before re-use.

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
TARGET AL62	TARG/AL62/25
TARGET ALCO	TARG/ALCO/25
TARGET AB42	TARG/AB42/25
TARGET GP	TARG/GP/25

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