PRONORTEC AL-02

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Updated tradition.

Technical Data Sheet

General Description

PRONORTEC AL-02® — QUALICOAT certified—is a **NO RINSE** aluminum conversion treatment based on organic phosphorus compounds, used after a suitable surface treatment and rinsing processes.
It creates a uniform nanometric protective coating that increases the corrosion resistance of the metal. The nanometric film has the following characteristics:

- hydrophobic and colorless coating.
- thickness of the order of a few nanometers.
- very high adhesion with thermosetting epoxy, polyester and mixed powder paints, as well as water-soluble and solvent paints.

It is not QUALICOAT certified for ANODIZED ALUMINUM.

Technical features

SPECIFIC WEIGHT at 20°C ..... 1,00 ÷ 1,10 kg/L
pH..... 2,00 ÷ 3,00

Limits

The **PRONORTEC AL-02®** bath is stable if the pH is lower than 5,5.

Materials

PRONORTEC AL-02® is compatible with the following materials:

- stainless steel, AISI 316 and AISI 316L;
- elastomers: Viton®;
- Plastic materials: PP, PEHD, PVDF;
- Fiber glass.

Storage

The product correctly transported and stored (at temperatures between 10 and 45°C, in the shade and away from sources of heat or electrostatic charges) is guaranteed for one year from the date of delivery, if stored as described in the safety data sheet.

Packaging

PRONORTEC AL-02® is available in approved packaging in 23 kg, 200 kg high density polyethylene and in 1000 kg approved tanks (I.B.C.).

PARAMETERS FOR QUALICOAT CERTIFICATION

Qualicoat process

Step	Concentration g/L or Conductivity [µS/cm]	pH	Notes
Alkaline degreasing (*)	*According to customer application*	*According to customer application*	• Not mandatory for QUALICOAT / QUALICOAT Seaside certification • # Rinses: ≥ 1
Acid pickling (**)	Etiching; ≥ 1 g/L for QUALICOAT ≥ 2 g/L for QUALICOAT Seaside	*According to customer application*	N/A
Rinse	N/A	N/A	# Rinses > 1
Final rinse before conversion coating	< 50 µS/cm	N/A	N/A
Conversion Coating: PRONORTEC AL-02	15 ÷ 25 g/L	pH 2,0 ÷ 4,0	NO RINSE STEP See the coating control procedure below
Drying off	N/A	N/A	In oven at >70 °C

(*) Suggested products: SACHE AST 01/SACHE AST 02 + DNAD product line
(**) Suggested products: DBT ALU X2 + DAC 200 or DBT ALU 200/DBT ALU 300

For more information please see the operating manual.

Method of determination of PRONORTEC on surface

Purpose: Procedure for the determination of PRONORTEC on surface in mg/m^2.

Equipment

- Cylinder
- Beker
- 1 Aluminum panel 10x6 mm treated with PRONORTEC process
- HACK Spectrophotometer DR3900/DR6000/DR1900
- Test kit LCK 364

Acid solution preparation

In a Beker:

1. add 30 ml of purified water (pH 6÷8; Hardness 0°f; Conductivity < 30 µS/cm)
2. Slowly add 3 ml of HCl at 34 %
3. Slowly add 6 ml of HNO_3 at 67 %
4. Kindly stir for 2 minutes

WARNING! THIS IS AN ESOTHERMIC REACTION, PLEASE STRICTLY FOLLOW THE ORDER OF THE ADDITION
SEE THE MSDS OF EACH SUBSTANCE.

Analysis preparation

1. Dip a panel of 10 cm x 6 cm (area 120 cm^2) for 2 minutes in the acid solution
2. Take the panel off the water solution
3. Analyze the acid solution according to LCK 364 procedure
4. Take note of the result (X)

$$mg\ Pronortec\ on\ surface\ m^2 = \frac{\left(\frac{X\ \left(\frac{mg}{L}\right)}{4} * 0{,}039\ (L)\right)}{0{,}012\ m^2}$$

Standard range: 20-55 mg/m^2

Warning

Before using the product, read the safety data sheet carefully.

Our technical service is at your complete disposal for any further information.

We are not responsible for failure to comply with our recommendations.