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## **NANOBIONIC Nanotechnology**

### **Aeroguard-Aluprotec**

Nano-hydrophobic aluminium protection

Product:

**NANOTEC Aeroguard-Aluprotec** is a special Nanotechnology product engineered for Aerospace and Military applications with a long-term effect on aluminium surfaces. This is not a sealer that forms a barrier but rather is a modification of the surface chemistry on a molecular level to provide a permanent easy to clean and protective surface. The hydrophobic product works by repelling water and prevents adherence of foreign matter on the surface. (**Easy to Clean/self-cleaning effect**). An ultra-thin and invisible coating is applied to the aluminium surface. Due to the hydrophobic treatment effect; dirt particles cannot penetrate the matrix of the surface. The Nano-Particles adhere directly to the substrate molecules, deflecting any foreign matter.

Water runs off easily from the treated surface and dirt particles are washed off by rain or when rinsed with a strong water spray.

**Prevents the adhering of brake dust**

**Water and Mud-repelling**

**Dirt-deflecting**

**Easy to clean/self cleaning effect**

**Weather protection/ Less De-icing needed**

**UV - weather-resistant**

**Stops Salt and Calcium damaging**

**Long-lasting.**

In a microscopic level aluminium is not completely smooth, so water and dirt on the surface can build up easily.

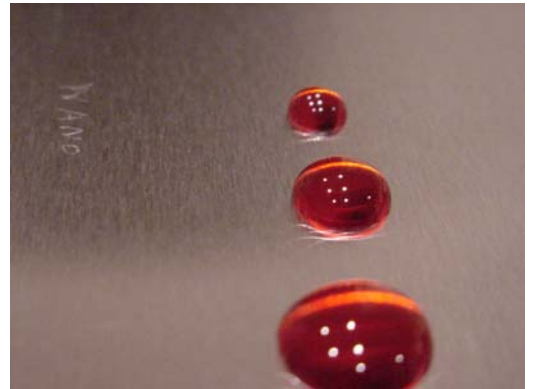
**NANOTEC Aeroguard-Aluprotec** allows the dirt in combination with water simply to wash off and provides a clean surface.

**NANOTEC Aeroguard-Aluprotec** protects the aluminium surfaces against getting dirty and significantly reduces

the build up of lime deposits on aluminium surfaces. The product is hydrophobic, stops salt build up, is resistant to friction and temperature changes. The treated surface is guarded against new contamination from dirt, dust and atmospheric pollution. Dirty water cannot settle into the aluminium surface. The coating is very long lasting.

**NANOTEC Aeroguard-Aluprotec** is UV stable. It cannot be removed by water, cleaning agent or with high pressure

equipment. **NANOTEC Aeroguard-Aluprotec** guarantees that the surface retains its original clarity. Surfaces treated with **NANOTEC Aeroguard-Aluprotec** are very easy to maintain.



Business Wire

A Kaiser Aluminum mill in Trentwood, Wash., makes aluminum plate for use in military vehicle armor kits.

## Ranges of application of NANOTEC Aeroguard-Aluprotec

Aluminium rims, anodised aluminium, coated – painted and all aluminium components, wing leading edge, aircraft aluminium skin, engine cowlings .

### Aluminium plate used for Amor on Military Vehicles.

In situations where there is no water or rain, the product will provide an easy to clean and protected surface.



## Applying NANOTEC Aeroguard-Aluprotec

It is to be noted that older surfaces must be thoroughly cleaned with water, high pressure water jet or steam cleaned (possibly in connection with our cleaner **Nanotec Rim Cleaner**). The substrate must be completely dry before application. Solvent and acid cleaners must be neutralized before one applies **NANOTEC Aeroguard-Aluprotec**. It is important that there are no residues from the cleaner itself on the prepared surface.

Now apply **NANOTEC Aeroguard-Aluprotec** with a dry and clean cotton cloth or a soft paper towel on the clean and dry substrate and polish it in at the same time. The application takes place in a processing step, whereby the coating is

to be sprayed on and wiped on. Alternative the product can be sprayed directly on to the cloth and wiped on.

Don't apply more **NANOTEC Aeroguard-Aluprotec** than the surface can absorb. Coating splashes on adjacent surfaces, not to be treaded should be avoided. Repeat the application after a short drying between 2 and 15 min. The product should not be applied in wet or cold weather.

**Important:** The **NANOTEC Aeroguard-Aluprotec** solution should not be visible after the final polish. After 24 hours the optimal protective effect is reached .However, the treated surface is rainproof after 1-hour.

**NANOTEC Aeroguard-Aluprotec** can be sprayed on with special professional spraying devices, the finest mist/droplet size is required. **A dry air system is mandatory when using a supplied air spray device, or the moisture in the air supply line will contaminate the Nano-treatment.**

**Important!! Please pay attention to all details in our instruction.**

**Environmental protection:** Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with regulations made for waste.

### Consumption:

For manual application you will use between 5 ml and 20 ml for each m<sup>2</sup> of surface (1 litre will cover 50-200 square meters).

Consumption with professional spraying devices (depending on the absorbency of the substrate) is between 5 and 15 g per square meter.

### Duration of storage:

Can be stored in the original sealed packaging for at least 12 months. Storage conditions should be dry and warm (between 10° and 20°C).

After opening the container **NANOTEC Aeroguard-Aluprotec** should be used quickly.

### First Aid:

Read the Material Safety Data Sheet.(MSDS)

If swallowed, rinse mouth thoroughly with water immediately.

DO NOT induce vomiting. Seek medical advice.

The information presented is offered as a result of the manufacturer's experience and as such is not to be taken as an offer and does not imply any warranty or guarantee as to the completeness of the descriptions or statements contained herein. Further, the manufacturer reserves the right to alter products, systems, specifications and/or application techniques as described herein without prior notice, in line with its policy of technological advancement and product improvement. Technical information and services are freely available from NANOTEC-USA.