

PRODUCT INFORMATION



NANOWORKS PREMIUM ELECTRIC
NANOWORKS PREMIUM ANT-COR
NANO PREMIUM AGRI & OUTDOOR
The No. 1 Moisture Protector – World Wide

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Product – Information
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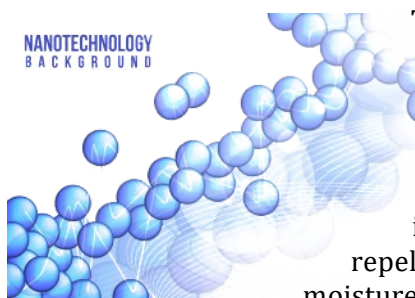
Product Description

NanoWorks' Range of Premium Moisture Displacement products:



1. **NanoWorks Premium Electric,**
2. **NanoWorks Premium Anti-Cor and**
3. **NanoWorks Premium Agri & Outdoor**

The three products above are unique and highly advanced and highly effective nano structured moisture displacement spray on products with added anti-corrosive, antioxidant, dielectric and cleaning agents/properties. It has proven to effectively protect metal, electrical and electronic parts, devices, machines and equipment from water, any form of water, i.e. vapour, humidity, condensation, splashes, fog, rain/acid rain, chlorinated water, flooding, burst water pipes, water used for firefighting, saltwater, etc. Each one of the products in this range's formula has been uniquely adapted for optimal results in its specific field of application.



The products was developed by a team of German, American, and Slovak scientist and delivers what it promises – to repel water and moisture and to protect valuable steel/metal, electric and

electronic assets against water/moisture and corrosion damage.

After the products have been sprayed on to the surface, the resulting three-dimensional nano-structured protective coating produces the following unique set of properties:

- Highly Hydrophobic with a 100% Water Displacement coefficient within 10 seconds!
- Maintains/Restores electrical conductivity of electric and electronic devices, even under water. (It can be applied to already wet surfaces)
- Microscopic deep penetration.
- Effective Temperature: -20°C – 130°C

Which product to use?

All three of the products in this range, **NanoWorks Premium Electric**, **Premium Anti-Cor** and **Premium Agri & Outdoors** provides protection against moisture, corrosion and electrical malfunction. However the exact formula of the different products in this range distinguishes them from each other in the following ways:

- **NanoWorks Premium Electric:** It has a higher degree of efficiency in (industrial) Electrical applications.
- **NanoWorks Premium Anti-Cor:** It has a higher degree of efficiency in highly corrosive environments.
- **NanoWorks Premium Agri & Outdoors:** It has a higher efficiency in dirty environments.

Product Ingredients and the environment

The active substances of the NanoWorks Premium Moisture displacement and Anti-Corrosive products range is made from a mixture of highly refined mineral oil, anti corrosive additives, antioxidants and de-aromatised paraffin and naphthenic hydrocarbons. The product does not contain any resins, silicone, acrylic, Teflon or aromatic compounds; and to protect the environment, the propellant in the cans is comprised of a mixture of propane and butane, which is not harmful to the ozone layer. The products also has no adverse effect on standard plastics, rubber, glass, varnishes, ceramics or metals such as steel, stainless steel, iron, aluminium, copper, zinc, tin and brass and it does not attack electric motors and insulating varnishes.

Solubility, Surfactants and cleaning

Not any one of the products in the **NanoWorks Premium** range described in this document is water

soluble and it does not emulsify. One of the biggest advantages of this wonderful products is that **none of them** is affected by surfactants, but if needed, it can easily be removed with platinum cleaner, brake cleaner or alcohol.

Effective Temperature

NanoWorks Premium Electric, Premium Anti-Cor and Premium Agri & Outdoors is insensitive to weather and temperature extremes. It remains completely effective at temperatures between -20 and +130°C.

Elasticity, Penetration and Application

Thanks to its oily consistency, the products in this **Premium** range always maintains its elasticity, making it the ideal water repellent for flexible parts. The Nano-structured components enables deep microscopic penetration: The full penetrating effect starts after 2-3 minutes when the nano-additives have been transported into the (smallest) micro cavities, where they remain active for at least one year.

NanoWorks Premium Electric and Premium Agri-Outdoors can be used for prevention, repairs and emergencies.

Packaging

The three products in this range is available in the following can sizes:

- 110 ml can
- Shrinks: 6 x 110ml
- Bulk packaging or bulk ware for industrial use is also available.

Usage Instructions

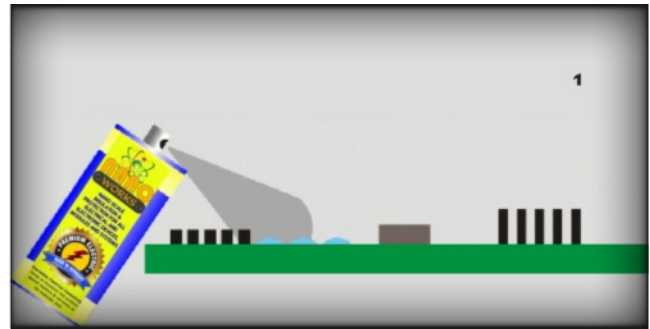
NanoWorks Premium Electric is easy to use: Shake before use, simply spray the area and wait 2 – 3 minutes for it to take effect.

Mechanism and Effects - How it works

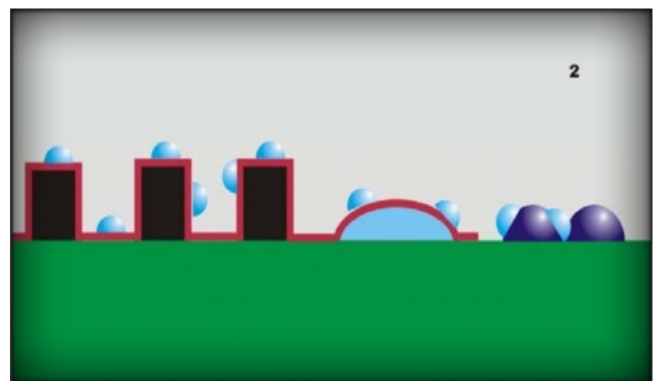
The three products described in this document , each in its own right, but especially so **NanoWorks Premium Anti-Cor** offers the best corrosion protection in the world. It is also the only anti-corrosion product that maintains and can even restore the electrical conductivity of metal, electric and electronic parts and equipment after they are subjected to moisture and or surfactants. Thanks to these properties, this product is the innovative leader for moisture and corrosion protection.

All three products owes its outstanding water displacement, corrosion protection, dielectric strength, creep strength and surface resistance properties to a unique combination of highly refined mineral oils, anti-corrosive additives, antioxidants and de-aromatised paraffinic and naphthenic

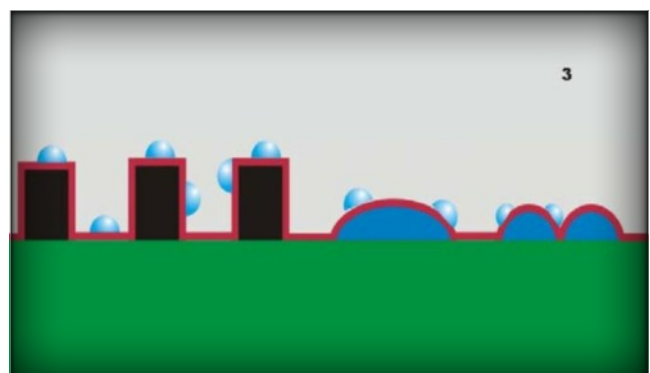
hydrocarbons. Here's how the moisture protection works:



After a surface has been sprayed, a 2.5 – 3 microns thick, tightly adhesive, water-displacing, water-repelling protective film immediately forms. Owing to its outstanding flow properties, the substance permanently fills even the most minute cavities, electrical windings and coils. Consistent with laboratory testing, the product exhibits a water displacement coefficient of 100% within ten seconds. ***This is unmatched by any other product in the world. Even after long-time contact, the combination of substances and water does not mix. Its moisture protection even works when the parts to be protected are already wet.***



The products' ability to subsequently establish its water-repelling protective shield under water (shown in the figure above as a yellow line under the blue drops) is due to the high adhesive properties and low viscosity of the unique combination of substances. Thanks to this combination, **NanoWorks Premium Electric, Premium Anti-Cor and Premium Agri & Outdoors** surpassed every other product in all standard corrosion protection tests.



Another important reason for the three products in this range effectiveness is that the substance itself is water-insoluble. This, along with the product's resistance to commonly used surfactants, guarantees effective and long-lasting moisture protection. The protective shield against moisture is so strong that it even allows for electrical conductivity under water. This means that electric devices and installations continue to work even when they are already wet or, in extreme cases, when they are completely submerged. In flooding situations, this can eliminate expensive repair costs and maybe even save lives - for example, when electric pumps must be switched off because they are submerged.

Effects

A study conducted by the Laboratory for Environmental Product Analysis in Germany has shown that **NanoWorks Premium Electric** exhibits exceptional properties in terms of moisture protection. The high degree of **NanoWorks Premium Moisture Displacement and Anti-Corrosion formulas's** water-repelling and water displacing effect can clearly be seen in the following illustrations:

Premium product range's intention to not only be the most effective, but also the most innovative moisture protection products in the world today. Because of these high benchmarks, these three in the **NanoWorks Premium** range has the following main effects:

- That **NanoWorks Premium Electric, Premium Anti-Cor and Premium Agri & Outdoors** has been proven to protect metal, electrical and electronic parts, devices, machines and installations from all forms of moisture (vapor, condensation water, splashes, humidity, rain/acid rain, flooding, burst water pipes, etc.).
- **NanoWorks Premium Electric** can restore operation of electrical devices, installations and machines that are already wet and/or flooded, thus reducing failures and downtimes.

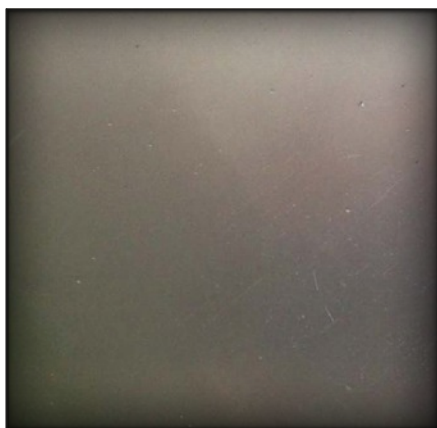
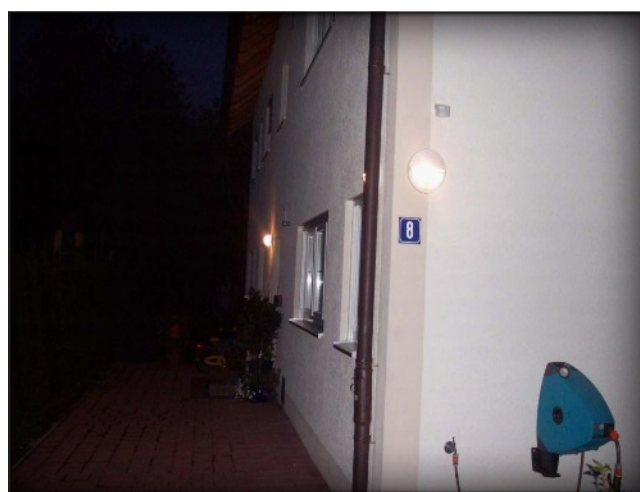


Figure 1.1
The water sprayed onto this metal sheet to the left (treated with NanoWorks Premium Electric) immediately flows off, resulting in complete water displacement in 10 seconds.



Figure 1.2
On the untreated metal sheet, the water simply remains, as clearly indicated by the many water drops. This leads to the formation of rust.



The illustration above and below shows just how effective **NanoWorks Premium Electric** is at displacing water. The outdoor lamp shown in the picture has been burning for over one year without short-circuiting, even though the electrical contacts have been submerged in water (as can clearly be seen on the picture below).



Before **NanoWorks Premium Electric** was applied, several electricians tried in vain to prevent water from penetrating the outdoor lamp, which is mounted on the weather side of the house.

In its testing report, the Laboratory confirmed that these products of ours clearly surpassed other products in terms of water displacement and moisture protection. This underscores **NanoWorks**

Another important effect of **NanoWorks Premium Electric** is that it permits electrical and electronic devices to function once again even if they are already wet - for example, if they are located in a flooded cellar as in the picture above

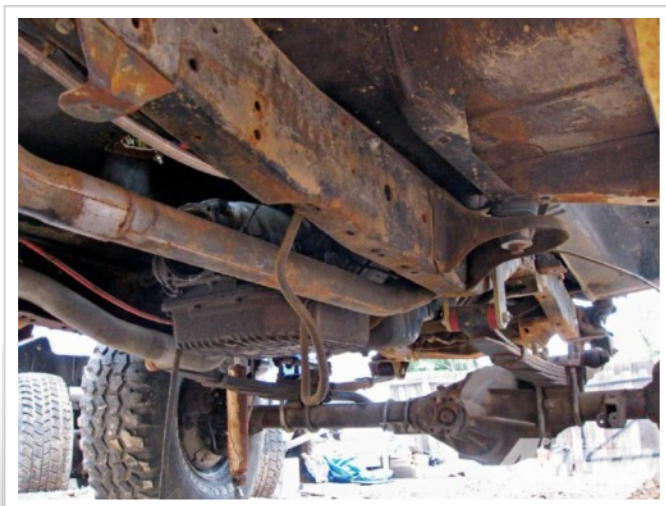
Moisture & Corrosion Protection

NanoWorks Premium Anti-Cor offers effective protection against salt water, chlorinated water, acid rain, various chemicals, as well as spilled beverages, such as soft drinks, etc.



Accordingly, the second main effect of **NanoWorks Premium products** is its effectiveness against corrosion and rust.

Rust forms when oxygen comes in direct contact with wet metal. Rust film begins to form within a few seconds and causes millions of dollars storage and transport damage every year. With **NanoWorks Premium Anti-Cor and Premium Agri & Outdoors**, such damages could be prevented.



Another unsolved problem has been corrosion damage on the underbody and frame of vehicles, or on machine parts, as illustrated by the picture above

With **NanoWorks Premium Anti-Cor**, such damage could be avoided or at least significantly reduced.

Cleaning Properties

According to tests conducted by Laboratory, due to added cleaning agents, this group of **NanoWorks Premium** products, especially so **NanoWorks Premium Agri & Outdoors**, can also remove dust and dirt. Through this cleaning effect, current leaks resulting in ignition failures can be prevented.



This **NanoWorks Premium** group is also very effective at eliminating squeaking and mechanical friction- for example, on doors. Both problems are caused either by dirt or corrosion. However, dirt can only accumulate on metal if moisture is present as a binding agent, and corrosion is a direct consequence of moisture. It is right here where the longevity of this group of products distinguish it from other products. Once a surface is sprayed, **NanoWorks Premium Electric, Premium Anti-Cor and Premium Agri & Outdoors'** effect lasts for up to a year (depending on mechanical stress).

Moisture - an aggressive enemy

Even though these three **NanoWorks Premium** products can each be respectively used for a wide range of applications, each single one of them excels at preventing costly damage that results when the need for effective moisture protection is not recognized, is not provided for, or is simply ignored.

That moisture protection has not been made widely known is not without reason: The few people who recognize the importance of moisture protection have made it a point to not inform others about this unresolved problem. The reasons for this are many: Some do not want to admit that they have yet to find a satisfactory solution for effectively protecting metal, electrical and electronic parts and devices; others actually profit from water damage; and finally, some have remained quiet in order to maintain the demand for new and replacement products.

However, in general, the majority of people do not trouble themselves with water and moisture protection as they are not aware of how costly water damage can be. This ignorance has been further perpetuated by the fact that up until now no

products have been available for protecting metal, electrical and electronic objects from moisture. Like it or not, they simply accepted that, for example, outdoor lights fail sooner than indoor ones and that cars and bicycles begin to rust at some point and need to be replaced. This somewhat fatalistic attitude is not surprising - after all, every school child learns that metal rusts when it comes in contact with water, water and electricity should never come in direct contact with one another. If this happens, in the best case, the FE switch/circuit breaker will trip. However, more often than not, a short-circuit occurs, the connected electrical devices are damaged or a serious fire may even break out. Furthermore, if people come in contact with a combination of electricity and water, the results can be fatal. Everyone shudders at the old hair-dryer-in-the-bathtub scenario. With this three NanoWorks' Premium Water Displacement and Ant-Corrosion products, you and your equipment are protected.



Many people is well aware of how costly and dangerous water damage due to heavy rains and flooding can be. However, hardly anyone thinks about the considerable damage that can be caused by "just" water vapour, humidity, condensation water, spray, fog, acid rain, chlorinated water, salt water, and even spilled beverages. However, costs due to such damages can hardly be ignored:

According to calculations of the transport insurance companies, corrosion damage due to humidity amounts to about 5 million euros a week in Germany's export sector alone.



About 80 percent of all serious system failures that require an electrician are due to moisture problems.

According to car breakdown statistics provided by the German automobile club, ADAC, 36 percent of the 3.6 million registered breakdowns involve a car's

electrical system and 16 percent specifically the ignition system; most of these problems are caused by moisture and complications resulting from it.

Over 50 percent of all deficiencies found by automobile inspectors are due to rust damage, which limits or no longer guarantees the safe operation of a vehicle. Rust damage is always caused by moisture!



Seen in this light, the science behind *NanoWorks Premium Electric, Premium Anti-Cor* and *Premium Agri & Outdoors* is an amazing innovation: Finally, 4,500 years after the discovery of metal and about 250 years after the "invention" of electricity, a product is available that has been proven to effectively and economically protect metal, electrical and electronic parts, devices, machines and installations against all types of moisture. What's more, this protection is even possible if the object to be protected is already wet (for example, a fuse box in a flooded basement). *NanoWorks Premium range* infiltrates under the water creating a protective layer, and so allowing the device to resume normal operation. In this way, *these three products* meets two important needs that justify its cutting-edge innovation and top position in the market:

1. It protects metal from corrosion and ensures electrical conductivity, even under water, thus eliminating the usual short-circuiting.
2. The economic benefit of *NanoWorks Premium Electric, Premium Ant-Cor* and *Premium Agri & Outdoors* is easy to calculate:

Costs for repairs, new equipment, system breakdowns and downtime (e.g. of machines and equipment), etc.

- Cost of 110ml *NanoWorks Premium can*
= Potential savings, generated added value or ROI (Return on Investment)

The amount of money saved may vary depending on industry, trade, institution, public agency or individual - but one thing is for sure, everyone saves because:

- parts, devices, machines and installations protected against moisture with any these three

NanoWorks Premium products guarantee a longer service life and more reliable operation,

- investments in other more expensive and often environmentally detrimental - corrosion protection measures with limited effectiveness can be avoided,
- machine and installation (e.g. filling equipment, construction cranes, etc.) failures and downtimes due to moisture can be eliminated or reduced,
- unnecessary expenses for new equipment (to replace no longer functioning devices, tools, machines and installations) can be significantly decreased,
- storage-and transport-related rust damage is prevented or reduced.



Picture: <http://pictures-and-images.com>

In addition to these calculable financial benefits, this three amazing **NanoWorks Premium Moisture & Corrosion Protection products** offers other advantages through its innovative moisture protection that cannot be precisely estimated. This includes, for example, better corporate image, greater competency, and a leading edge over actual or perceived competitors. It also means longer production times (by preventing system failures and downtimes) and less exasperation as device, machine and installation failures occur less frequently and new equipment and expensive repair costs for are reduced.



Industrial Maintenance

Picture: <https://www.tesium.com/>

Consequently, these **NanoWorks Premium Products** offers users a number of important benefits, from which not only companies, institutions and public organizations can profit, but also private individuals. Below is a recap of all of **NanoWorks Premium Electric, Premium Anti-Cor and Premium Agri & Outdoors'** most important benefits:

- Each product offers high corrosion protection in its specific fields of application, which other companies promise, but do not deliver.
- Each product, in its specific fields of application, offers highly effective protection against moisture for electrical and electronic components, assemblies, devices, machines and installations without impeding electrical conductivity.
- Each products can be used for prevention, repairs and emergencies in its specific fields of application.

The two pictures below is two typical examples in which those involved could have saved a great deal of money if they had had these products from the **NanoWorks Premium** range as an immediate measure:



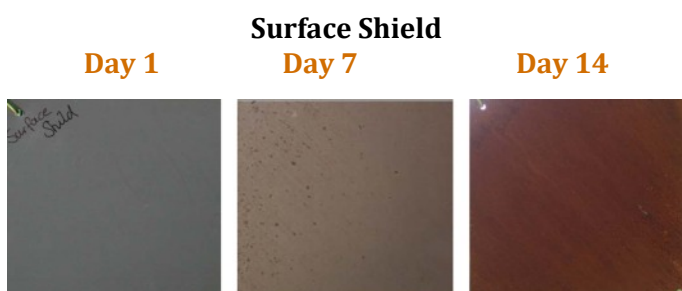
Init ial Test Results

NanoWorks Premium Electric has been tested for its properties and effects by various German and international institutes and companies. Below is an overview of the most important results.

Corrosion Test using Metal Sheets

In conducting a comparative corrosion test, the metal sheets used were polished, cleaned and degreased. They were then sprayed with different

products that claim to prevent rust. The treated metal sheets were evenly wetted with seawater two times a day for 14 days. The development of corrosion provides information on the protective effect of the various products.



NanoWorks Premium Anti-Cor

Day 1Day 7Day 14



Printed Circuit Boards Submersion Test

Various new printed circuit boards were submerged in water and then tested to see if they still operated correctly.

Test 1:

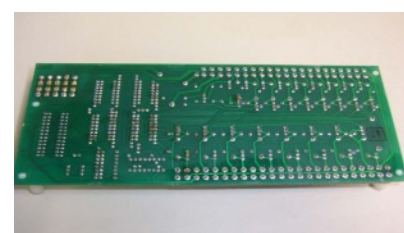
After the printed circuit boards were submerged in water, they were hung up or two minutes to allow the water to drip off. A functionality test was then performed. Result: 80 percent of the different printed circuit boards no longer worked. These printed circuit boards were then sprayed with **NanoWorks Premium Electric**. Result: 60 percent of the printed circuit boards that previously did not work functioned again after being sprayed with **NanoWorks Premium Electric**.

Test 2:

Various new printed circuit boards were sprayed with **NanoWorks Premium Electric** before they were submerged in water. They were then hung up for two minutes to allow the water to drip off. The functionality test then performed showed that 80 percent of the printed circuit boards still worked perfectly.

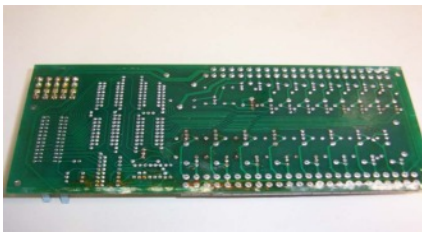
Test on Printed Circuit Boards Sprayed with Saltwater

Five of ten new printed circuit boards were treated with **NanoWorks Premium Electric**. Both the treated and untreated printed circuit boards were then sprayed with saltwater two times a day for two hours and then hung up to dry for ten hours. This test extended over a period of two weeks. The printed circuit boards were then subjected to a functionality test. Result: The printed circuit boards treated with **NanoWorks Premium Electric** still functioned even after two weeks, while the untreated printed circuit boards were defective.



No traces of oxidation were noted at the soldering points on this printed circuit board treated with **NanoWorks Premium Electric**. They worked perfectly after being

subjected to the saltwater spray test for two weeks.



Considerable oxidation was noted at the soldering points on this untreated printed circuit board. It no longer worked after

being subjected to the saltwater spray test for two weeks.

Chemical Testing of High-Pressure Threaded Fittings

In this test, high-pressure threaded fittings were sprayed with various undiluted chemicals five times a day. The test extended over a period of three weeks. Result: There was no rust on the high-pressure fittings that were treated with **NanoWorks Premium** prior to being sprayed with the chemicals. The untreated high-pressure fittings exhibited a great deal of rust.



The high-pressure fittings treated with **NanoWorks Premium Electric** show no signs of rust. They are still in good working order after this rigorous test.



The untreated high-pressure fittings show considerable signs of rust. Their proper functionality is no longer guaranteed.

Practical Test at Car Wash

Several cases of tampering with the remote control system were ascertained at a car wash. The perpetrators sprayed a high-pressure water jet near the coin validator inside the remote control system, creating contact with the micro switch.



The result: the car wash units were activated allowing people to wash their cars for hours without having to pay. In the practical test, all electrical parts of the

remote control system, such as the micro switch and control board were sprayed one time with **NanoWorks Premium Agri & Outdoors**.

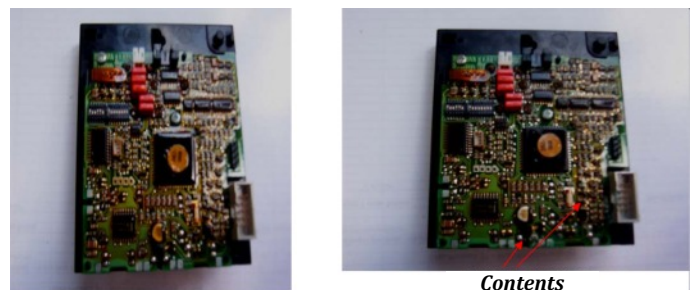


Result: After spraying the electrical parts with **NanoWorks Premium Agri & Outdoors**, the manufacturer tried to manipulate the car wash himself using a high-pressure jet of water.

Result: The car wash could no longer be tampered with. Afterwards the car wash resumed normal operation. Subsequent inspections revealed that water had been forced into the remote control system, which meant that someone had once again tried to tamper with the car wash. However, the value of the coins collected in the machine corresponded to the actual number of car washes performed. This meant that eight weeks later, after spraying the system with **NanoWorks Premium Agri & Outdoors** one time, all attempts of tampering with the machine were unsuccessful.

Practical Test on Coin Acceptor

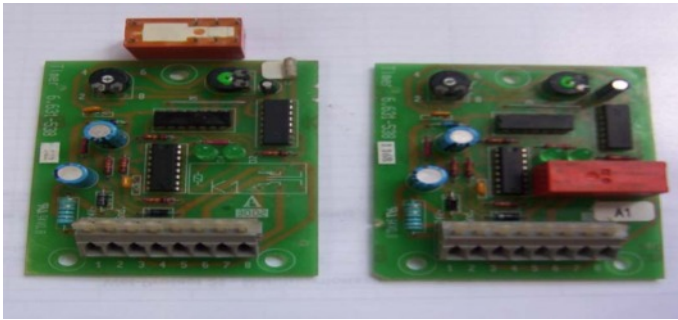
Electrical coin validators on self-service car wash facilities are highly sensitive to condensation water and water vapour. If they are mounted outside, as is often the case, sooner or later, the printed circuit board inside the coin acceptor begins to rust. When this happens, a coin validator no longer accepts the correct coins and must be replaced -an enormous cost factor.



The coin validator shown in the illustration on the left was treated with **NanoWorks Premium Electric**; the one on the right was not treated. After eight weeks, slight traces of oxidation were noted on the printed circuit board of the untreated coin validator, while the one treated with wet-protect 21 universal exhibited no signs of oxidation. Although the untreated coin validator still worked after eight weeks, it was only a matter of time before it would fail.

Climatic Chamber Test with Printed Circuit Boards and Metal Sheets

Various metal sheets and printed circuit boards were suspended in a climatic chamber for ten days at a temperature of about 60°C and a relative humidity of 70 %. One group of metal sheets and printed circuit boards was treated with **NanoWorks Premium Electric** beforehand, the other was not. Result: The untreated metal sheets and printed circuit boards showed clear signs of initial rust, while those treated with **NanoWorks Premium Electric** showed no signs of rust (see photograph below).



Left: an untreated board. Right: a board treated with **NanoWorks Premium Electric**.

A functionality test was also performed on the printed circuit boards. Result: The printed circuit boards treated with **NanoWorks Premium Electric** were still in good working condition, while the untreated ones were not.

Practical Test on Electrical Fuse Boxes

After a water pipe burst in one of Munich's exclusive hotels the fuse boxes in the basement were completely submerged in water within a few minutes. Normally, the fuse boxes would have had to be dismantled to allow them to dry and temporary fuse boxes would have had to be installed so that the hotel could resume operation. As the hotel's electrician already had a can of **NanoWorks Premium Electric** at hand, he sprayed the saturated fuse boxes. Within minutes the lights throughout the hotel came back on. Savings: almost 9,000 euros.

A Word of Caution



As **NanoWorks Premium Electric**, **Premium Anti-Cor** and **Premium Agri & Outdoors** is flammable (its propellant contains propane and butane), do not spray it on active electrical circuits. Shut down the power before applying **NanoWorks Premium Electric**. And wait a few minutes before reactivating equipment or connecting it to the electrical circuit.

Areas of Application



Again: All three of the products, **NanoWorks Premium Electric**, **Premium Anti-Cor** and **Premium Agri & Outdoors** provides protection against moisture, corrosion and electrical malfunction., However the exact formula of the different products in this range distinguishes them from each other in the following ways:

- **NanoWorks Premium Electric**: It has a higher degree of efficiency in (industrial) Electrical applications.
- **NanoWorks Premium Anti-Cor**: It has a higher degree of efficiency in highly corrosive environments.
- **NanoWorks Premium Agri & Outdoors**: It has a higher efficiency in dirty environments.

According to the field of application, the correct **NanoWorks Premium** Moisture and Corrosion Protection product can be used wherever:

- moisture, damp, humidity, condensation and flooding can cause or has already caused malfunctions and/or damage,
- metal, electric and electronic components and systems are to be protected from humidity and the damage it causes,
- electric wires, contacts, electric motors, ignition-systems, windings, fuses, switch-appliances and switches, junctions boxes and signal-installations need damp protection or insulation,
- ignition problems are to be eliminated, current leaks suppressed, electric contacts restored and/or malfunctions corrected.

NanoWorks Premium Electric, **NanoWorks Premium Anti-Cor** and **NanoWorks Premium Agri & Outdoors** therefore reduces breakdowns and downtime to a minimum. The following is a list of typical application possibilities :

Alphabetical list of Applications

A

Adjustable valves
Advertising illuminations
Aerials
Alarm systems
Aquaria
Avionics
Awning control units

B

Ball bearings
Battery contacts
Battery-powered drills
Battery-powered screwdrivers
Battery-powered tools
Bell ringers
Bells / buzzers
Bicycles
Blind drives
Blind switches
Boilers (*electrical*)
Bowden cables
Branch boxes
Breweries
Building and path lighting
Building site lamps
Buses
Buzzers

C

Cable rollers
Cable rolling machines (*for large cable drums*)
Cable rolls
Camping
Caravans
Cars
Car washes
CEE sockets (*power sockets*)
Chip card readers
Christmas lighting
Circular saws
Circulating pumps
Cistern pumps
Coaxial plug connectors
Code locks in outside areas
Code locks in outside areas
Coils
Coin counters
Communications
Compass saws
Computers
Computer keyboards
Connection boxes
Commercial vehicles
Connection terminals
Construction machinery
Control cabinets
Control engineering
Controls (*HiFis and other areas*)
Counter current systems

Cylinder locks

D

Deep fat fryer
Detonators
Distribution boxes
Door castors
Door hinges
Door locks
Door operators
Door wiper contacts
Dormer window drives
Drill chucks on drills
Drills
Drives
Dynamos

E

Electric motors
Electrical cabinets on
building sites
Electrical devices
Electrical door openers
Electrical systems
Electromechanical drives
Electronic modules
Emergency lamps
Emergency power generators
Escalators
Exhaust pipes
Extension cables

F

Fans
Flex (angle grinders)
Float switches
Filling systems
Fine-wire fuses
Flashlights for vehicles
Fork-lift trucks
Floodlights
Fluorescent lights
Fog machines (*especially for dry ice*)
Forestry
Freezers
Fuse-boxes
Fuses

G

Garage door drives
Garages
Garden power sockets
Garden lamps
Garden pumps
Glow lamps
Grinding machines

H

Hall lighting
Hammer drills
Hand lamps
Hearing devices
Heating

Hedge-cutters
High-pressure cleaners
Hinges
House telephones
Hydraulic presses
Hydraulic pumps

I

Ignition
Ignition coils
Ignition problems
Illumination cables and mountings
Illuminations
Illumination systems
Industrial lamps
Installation relays
Intercoms & Intercom systems

J

Juicers

K

Keyboards
Key-operated switches

L

Lamp poles
Lamps
Lawnmowers
LED lamps
Letter box intercom systems
Lifting platforms
Lifting pumps
Lifts
Light chains
Light current systems
Lightning conductor systems
LNBS
LNCs
Locking systems
Locks (door locks)
Loudspeaker connections
Low-voltage applications in general
Low-voltage circuitry
Luster terminals

M

Marine Facilities
Mechanical latches
Metal cables
Metal sculptures (for gardens)
Model air planes
Model building in general
Model cars
Moped headlights
Motion sensors
Motor saws
Motor scooters
Motorcycles
Roller blades

O

Off-road vehicles
Old-timers
Open-air festivals

Optical / acoustic signal units
Orbital sanders
Orientation lamps
Rubber seals
Outboard engines
Outside fittings
Outside lamps
Outside sensing devices for heating systems

P

Padlocks
Paddle boats
Party illuminations
Pedals
Pin code keyboards
Pistols
Pliers (of all kinds)
Plug connections
Plug strips
Points systems
Pole lamps
Pool pumps
Position switches
Power supplies
Power transformers
Precision engineering
Presses (*all kinds; e.g. paper presses in recycling yards*)
Pressure monitors
Production equipment
Pumps

R

Racing bikes
Rain sensors
Rainwater pumps
Receivers
Receiving equipment (*antennae*)
Relay contacts
Revolving mirror lights
Rollers
Roller-skates
Roof ventilators
Rotary drives in general
Rotary switches
Running rigging (*sailing ships*)

S

Sat systems
Saws (of all kinds)
Shotguns
Shredders
Shredding systems
Signal engineering
Signal systems
Skateboards
Ski lifts
Socket terminals
Socket timers
Sockets
Wall fans
Spark plugs
Stacker trucks
Stage lighting
Starters

Street lamps
 Sunshade controls
 Swimming-pools
 Swing gate drives
 Switches
 Switchgear
 Switching devices
 Wind sensors
 Telecommunications in general
 Terminals
 Thermostats
 Timers
 Timing relays
 Tools
 Torches
 Toy boats
 Tractors
 Traffic light systems
 Traffic lights
 Trailers
 Trailer couplings
 Trailer sockets
 Transformers
 Trough lighting
 Trucks
 Tuners
 Twilight switches
U
 Underfloor installations
 Underwater lighting
 Upright drills
 UPS systems
V
 Valve drives
 Vending machines (*when Socket strips exposed to the elements*)
 Video door stations
W
 Wall lamps
 Warning bells
 Warning lights
 Waste treatment plants
 Wear
 Weather sensors
 Wet grinders
 Wheel hubs
 Wheelchairs
 Winches
 Windings
 Window hinges
 Window knobs
 Windscreen wipers
 Wiper contacts
 Work lamps
X
 XT circuits
Y
 Yachts

Technical Data

Composition:

Formulated from highly refined mineral oil, inhibitors, complex formers and auxiliaries, anti-corrosive additives, antioxidants, metal deactivators and hydrocarbons. Aerosol: Propane/Butane.

Physical and Chemical Properties:

Form : Aerosol
Color : Greenish
Ignition temperature : > 250°C
Lower explosion limits : 0.6 Vol.-%
Upper explosion limits : 10.9 Vol.-%
Solubility in / miscibility with water: Not miscible
Density at 20°C : 0.6 g/ml
Penetration: Extremely high creeping capabilities and excellent (microscopic) penetrability.
** Contains neither polycyclic hydrocarbons, fluorocarbons nor any chlorinated Hydrocarbons.*

Dielectric Strength:*

Immediately after spraying : 163KV/cm
 1 Hour after spraying : 208KV/cm
 100hours after spraying : 256KV/cm

Comparison Values:

Air : 33KV/cm
 Insulating Oil : 120KV/cm
 Glass : 140KV/cm
 Porcelain : 200KV/cm

** Identifies the insulation properties of a substance, which prevents the voltage from striking or jumping.*

*** The dielectric strength after spraying Moisture Seal Universal increases is due to the evaporation of the volatile components. The proportion of volatile components in this three **NanoWorks Premium** products is 37%.*

Surface Resistance:

28,46 Terra Ohm (28,460,000,000,000 Ohm)

Leakage current Stability: Leakage current is an undesired electrical current which occurs in cases of inadequate insulation and flows along the surface. Leakage current originates through moisture or contamination of the surface area. Leakage current can be avoided by high surface area resistance. **NanoWorks Premium Agri & Outdoors** creates an extremely high surface area Resistance.

Water displacement:

100% in 10 seconds. The international testing organization DEKRA has confirmed that NanoWorks Premium Electric, Anti-Cor a& Agri & Outdoors clearly has Superior water splay and pearling properties in comparison to all other products (multi-function oils and contact sprays).

Corrosion Protection:

A DIN 50021/EN DIN 1020-3.1 conducted salt-water spraying tests (5 cycles of 24 hours) with untreated and treated test plates resulted in no corrosion traces on the treated plates.