Tips for Classic Car Enthusiasts

GERMAN PREMIUM QUALITY

SGS TÜV SAAR ISO 9001

fertan®

Tips on

Treatment

Restoration

Maintainance

Preservation

Quality products from FERTAN

Tank Coating

TAPOX is developed as inner - tank coating for tanks in steel and aluminium.

The product is resistant to fuel and ethanol, heating oil and useful for ballast tanks of ships.

TAPOX can also be used for industrial applications and for concrete floors.

Dear classic car enthusiasts,

Every year billions of pounds worth of damage is caused by rust and corrosion.

For this reason it is understandable that more and more owners want to protect their cars and other metal property from this evil.

Firstly it is important to remember that more than 75% of car body rust takes place from the inside outwards. A really effective protection must therefore strike at the root of the problem: in the cavities, double skinning and welds.

Our product FERTAN® Rust Converter is really effective in cavities, joints, etc. because of its viscosity, and so it is now possible to eradicate even pre-existing rust and protect the metal effectively from further rusting.

This obviously applies not only to cars, but also to all things made of metal. For this reason we also supply FERTAN® for industrial applications, pipelines, ships, harbour installations, etc...

Best wishes

The professionals at
FERTAN®

Do our classic cars have to Rust?

Almost everyone who owns one or more classic cars (and who has therefore had to address rust!) asks themselves this question.

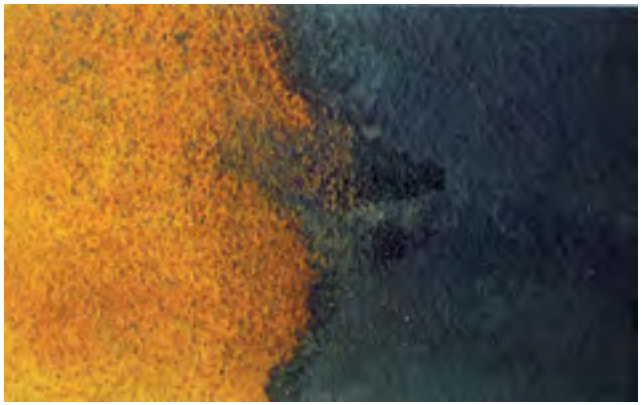
Firstly we should consider this question: What is rust

Many scientists have argued about this question and have unfortunately come to different conclusions. But for the sake of simplicity we will confine ourselves to rust in classic cars (i.e. to rust in objects constructed from metal), which serves our purposes here.

According to the theory of Witney and Woody, rust is an ionic problem, but the electrical theory of Walker is also more or less applicable. So the phenomenon of rust in iron or steel arises from the effect of ions and electrical charges or the voltage difference between areas of the metal surface. The fact that the ionisation of the metal releases electrons into the reaction mixture, which are absorbed by a water and oxygen system and then bind to hydroxide ions in order to yield a ferrous hydroxide (which we call rust), does not suffice to describe a phenomenon which is made more complicated by other factors.

In principle all of this should explain that the rust can't be considered, chemically speaking, as clearly defined and statically bonded to the iron, but rather as a heterogeneous and dynamic system that is constantly changing.

But what can be done to counteract this heterogeneous and dynamic system so that it doesn't degrade the whole of the classic car?



From many scientific studies that were already carried out it is clear that it is as ever important to remove all pre-existing rust as part of the preparation of a long-lasting protective coating. This is to prevent the rust from continuing as a dynamic system, albeit a concealed one.

So then how on earth do I get to grips with the rust, and how can I more or less economically conquer the whole thing?

If we scientifically examine the inner surface of an old car, either a monocoque construction with many welded joints or 'only' a car with a chassis, in the rust we will find among other things, for example, soluble salts of iron, calcium carbonate, magnesium carbonate and calcium chloride. However, in the rust particles there are also dampness and atmospheric oxygen.

Even if a protective coating (whatever it is made from) is applied over this heterogeneous and dynamic layer, to bring the dynamic system to a standstill by the removal of the oxygen, it will only look successful on the surface. This is because embedded under this 'protective layer' there are trapped rust particles along with the dampness and oxygen, and these will simply have to rust further, albeit now more slowly.

If you do this to your classic car, then you must be prepared to put up with these consequences sooner or later, and possibly have to sell it with a not-so-good conscience!

It is therefore absolutely vital to eliminate this heterogeneous and dynamic system completely before application of a protective coating. How to achieve this naturally depends on the areas to be derusted.

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However we must differentiate between two possibilities:

1. Mechanical derusting
2. Chemical derusting

The mechanical methods have the advantage that with our modern technology such as dry ice removal a nearly perfect surface is attainable, which can then be covered with a high quality protective coating so that it can withstand corrosive attack in the long term. However mechanical removal of the rust layer is not possible in all places, as many people know from their own practical knowledge and experience.

To cut open a corroded box section with an angle grinder, to clean and derust it (but even then not between layers, joints, in corners, etc.) makes no sense. Furthermore the welding which is necessary afterwards creates new pollutants which are corrosive and reach the metal surface - where they are most definitely not wanted!

In all these mechanically unreachable areas, only a chemical removal of rust will help to completely remove the heterogeneous and dynamic system.

With care, the body can be removed from the running gear, and all the constituent parts separated and dipped in a chemical bath. This can remove old filler, colours, underseal, cavity protection, etc., and can reveal the real state of the structure.

With a very valuable classic this is certainly an undertaking to be recommended, especially when the economic outlay is later rewarded with a higher sale price!

But what if the 'normal' Beetle, Escort, Spitfire or what have you, doesn't justify such treatment, on the grounds of cost?

In this instance, in order to remain within a normal budget, we need to assure the highest possible success with the lowest possible costs. A potentially successful way is to use chemical products for derusting and ideally for coating – i.e. a rust converter.
When this is carried out immediately after the dipping, it can protect the body from atmospheric corrosion in the drying-out phase, and thus protect it.
A modern rust converter has the advantage of removing the actual Fe3+ rust at the same time as coating the surface with a protective zinc phosphate layer, so that no new rust or atmospheric rust can form, either from water and dampness. It is vital to remove the water-soluble corrosive elements, e.g. salts, with water or wash them away.

Another way is to use chemical products for the derusting process, and ideally also for coating at the same time – in other words, a rust converter. This is often applied immediately after the dipping process, to prevent atmospheric corrosion in the drying phase of the body. If the heterogeneous and dynamic system is eliminated in this way, the task of actual protection can be begun, and in the exterior body area this begins with the application of filler, primer and paint. In box sections, sills, A-, B- and possibly C-posts, bonnets, etc., the best possible protection is obtainable by applying several thin coats of wax. These should be applied at room temperature, separated by several hours or days, in order to allow tiny cracks and splits in the individual coats to close up, and to achieve a homogeneous and extremely stable final coating, which will protect these especially vulnerable areas for a long period. To sum up it can be established that mechanical derusting where practicable, and also chemical derusting (or a combination of the two), is the best solution for a long-term protection of metallic and previously corroded surfaces.

fertan

FERTAN is a product proven over many years, which makes it possible to paint over previously rusted surfaces. It is no longer necessary to remove the rust mechanically, because FERTAN converts and removes it. It is also really effective in cavities.
Mechanical rust removal and sand blasting can fail because only the loose rust is removed. Just by painting with Fertan Rust Converter you can achieve a standard of rust removal exceeding SA2.5 and enjoy considerable cost savings and environmental benefits.

What does FERTAN mean?

You can see some of the chemical formula in the name, because
FER = ferrous (iron and steel) and
TAN = tannin.

What is FERTAN?

FERTAN is a water-based product which penetrates the rust, converts it chemically and leaves 'bronzed' metal on the surface. It is important that FERTAN doesn't cover the rust, like other products, but dissolves it. The resulting black powder can simply be washed off and the layer which lies underneath is extremely well-protected by a new bond to the metal.It replaces the rust until it has formed a bond with the metal underneath. On the surface it forms a compact layer – an iron/tannin compound which is insoluble in water and forms an ideal basis for further coverings.

FERTAN can be used as a protective coating on lightly rusted metal, stubborn rust and rust-free steel. Because FERTAN is water-based it forces its way into overlaps and seams, double skinning, welds and joints, and even blistered paint, and then reacts. It can be used on both dry and damp metal. It is not damaging to rubber, chrome, plastic, glass and undamaged paintwork. FERTAN only becomes active when it encounters metal or rust. It can be removed from all other surfaces simply by washing it off with water. It is not damaging to health, either by inhalation or by contact. In addition it is non-flammable and minimises the environmental damage of rust removal. As long as the surface treated is also treated with a protective coating, the effectiveness of FERTAN lasts for years. FERTAN can be used outside in all weathers except for frost.

Instructions for use:

First remove loose rust, grease, oil and dirt with a brush, dry cloth, pressure water jet or similar. Then apply FERTAN with a brush, roller, sponge or appropriate spray gun attachment. After about 1 hour dampen the treated surface (not necessary in damp conditions – e.g. cavities). Now allow FERTAN to work for at least 24 hours (or 48 hours in temperatures of less than 12 deg. C). Do not use in temperatures below freezing.
Before further treatment always clean the surface with water.

The prepared metal surfaces can be left from a few days to a maximum of six months before applying further treatments. Before further treatment (e.g. painting) the surface should be rinsed with water, or the black dust arising from the conversion of the rust should be wiped off with a soft cloth.

A litre of FERTAN is sufficient for an area of about 15 m2. FERTAN can mark paler surfaces, so you should cover the surrounding areas. If using a spray periodically wash out the spray attachment with water.

FERTAN is a dark fluid with an aromatic smell, lightly acidic and with a specific gravity of 1.18.

On contact with skin a simple rinse under running water is sufficient. Do not drink. In the closed container FERTAN will keep practically indefinitely. Store Fertan in a frost-free place.

The 3 most important steps in **Restoration**

1. Cleaning
2. Treatment with Fertan®
3. Further Treatment

1. The Cleaning

Cleaning is an essential part of preparation. The finished product is only as good as the preparation allows it to be.
Please don't forget that before using FERTAN® the metal surface to be treated must be perfectly clean act with rust 100% effectively in the presence of dirt, oil, grease or silicon, so please first of all throughly clean the surface to be treated. The rust does not need to be completely removed from the surface, but must be thoroughly clean. With these cleaners that's no problem!

These also help with durability, because clean objects last longer. Also take care not to overlook hidden silicon. Small traces of it remain in the pores and 'grain' of even clean, sanded metal, and can only removed with a silicon remover.

2. Treatment with FERTAN

FERTAN® treatment is actually very simple – and especially so when the surfaces to be treated have been cleaned in advance. However, in areas such as box sections a compressor and an injector with a 360° spray head are essential. You will find cavity pressure and gravity fed guns at the end of this brochure.

In this brochure you will also find specific instructions for all areas of car restoration. Please address any further questions to our technical customer service department.
FERTAN® is available in a wide variety of container sizes. These range from a small 30 ml bottle with built-in touch-up brush to a 1000 litre industrial container. The 1-litre can has a standardised connector which fits all common cavity and underbody spray equipment.

3. Further Treatment

The final protection of previously corroded parts and cavities is a particularly important matter. Durable, permanent protection of the metal is guaranteed only if optimal after-treatment is used and this means using material of the highest quality.

In cavities, folds and double-sheet etc. the protection material has to penetrate between these to enable long-lasting protection. At these parts all materials should be applied under pressure.

At the same time a product which cures and hardens should never be used as it can distort the panels. Only a very flexible wax or car-body grease can be used and FERTAN cavity wax or FERTAN car body grease represent the high quality available.

For underbodies always bear in mind the likely future demands on the car when deciding about the final treatment. A car used only in summer will have different demands from cars used all year.

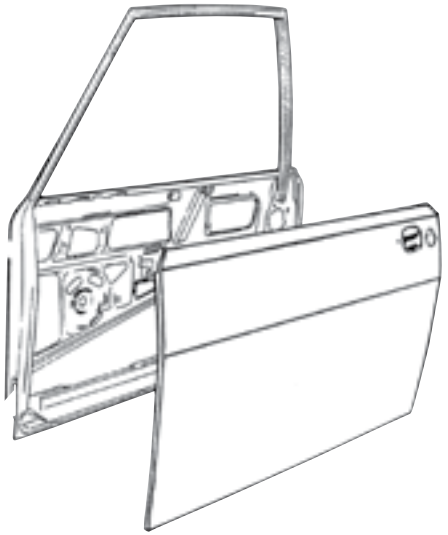
If a car is used only at shows and presentations then a thin water repellent wax applied after painting the underbody will give the best appearance.

Wax or fine grease is always a better solution than tar or bitumen based products.

Removal of Rust and Corrosion in folds and seams

To begin with the outer areas of the folded seam are sanded smooth as preparation for the following treatments. Any rust pits and pinholes should not be treated until after the work on the folded seams has been completed, so as to avoid problems when applying filler etc.

When treating folded door seams removal of the trim pad is recommended, partly to improve access and partly to avoid soiling the trim parts.

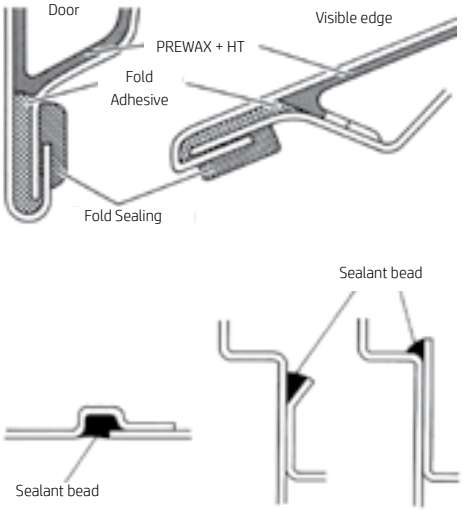


FERTAN should be applied directly to the inside of the folded seam with a spray gun using a pressure of about 4 bar (60 psi), and because of its viscosity it will then partly penetrate into the fold and partly come out of the lower part. To avoid spots and marking, FERTAN should be washed off with water as quickly as possible; however, this isn't important if the area is being painted afterwards.

In the folded seams, FERTAN should be allowed to act for 24 hours and then the fold should be treated liberally with clean water. This could also be done with a spray gun.

Water, as well as dirt and dust, flows out through the water drain holes, and it is therefore vital that these remain open. The folds are absolutely rust-free and are finally protected with wax.

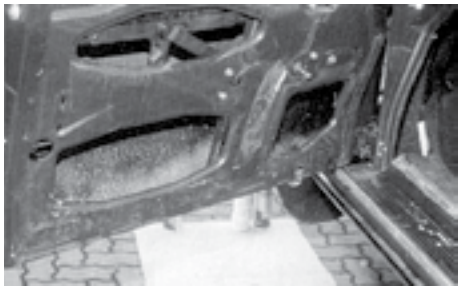
Edge protection through folding and sealing



When treating cavities in bonnets and doors a cavity spray attachment must be used, if possible in conjunction with a high pressure cavity spray gun, in the same way as with other cavities. The difference is that in these applications the openings are often much smaller than usual, and can't be reached with a normal (8-10 mm) attachment.

Removal of Rust and Corrosion in folds and seams

At doors, bonnets, boots etc. we will find very small inner boxes and cavities in which a normal probe of a cavity gun cannot be used to de-rust and not to protect these by wax or grease. For this the hand-gun with probe of only 4,2 mm fitted to the FERTAN bottle is very helpful. With this FERTAN can be applied and after the



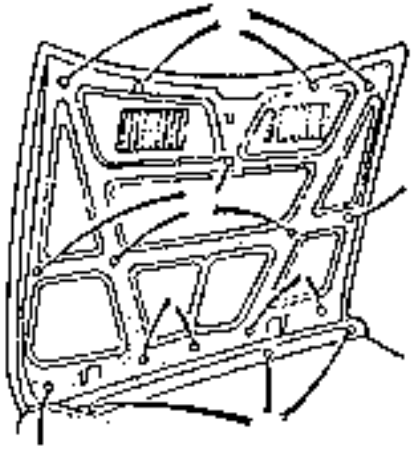
reaction time rinsed by water.
For final protection the thin probe at H T cavity wax spray bottle or at carbody grease spray bottle is the perfect solution with 360° probe.
Surplus wax or grease can be removed easily by solvent and a towel.

To de-rust the fold perfectly inside doors, bonnets etc. bring with a little pressure FERTAN into the fold and let react al least 24 hours at 20° C. After this rinse with pressure too the fold with clear water. In this step the dissolved rust, the pollutant will be washed off and the fold is rust-free.

After drying use the small probe of PTREWAX to inject these into the joint of the fold. The durable and very flexible product remain into the fold water resistant and prevent any kind of contact corrosion.

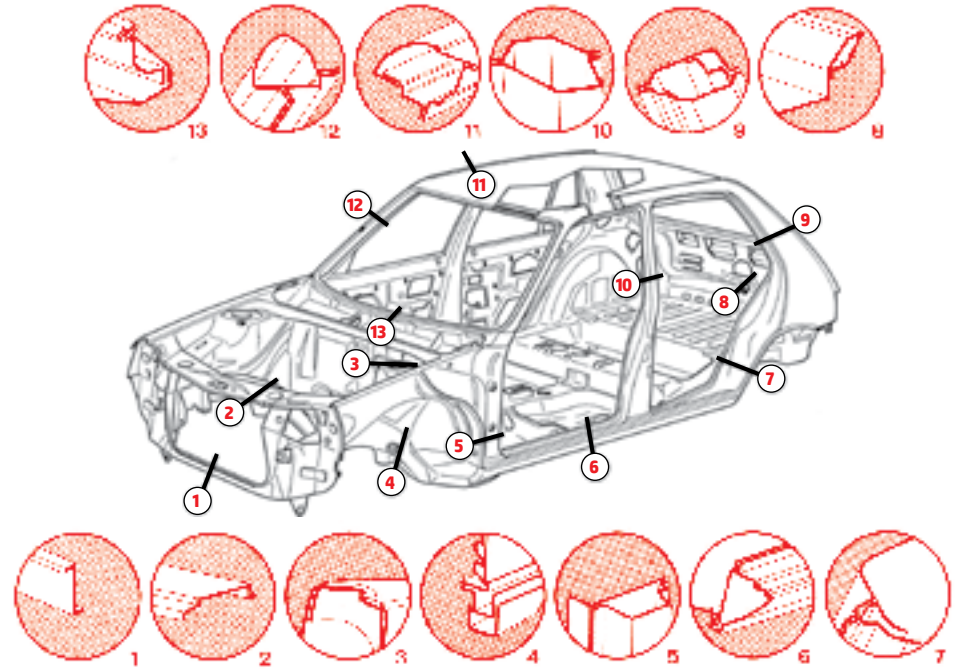
ATTENTION: After using cavity wax or carbody grease open the drilled holes at the bottom with a wire or something else so water coming inside from windows can flowing off.

Corroded parts inside the doors, e.g. parts of window kitt or at the lock can after dismantling easy de-rusted in a bath of FeDOX. After de-rusting protect these parts as first with a thin layer of M M 30 and after about 48 hours with a thin layer of UBS 240. Protect in this way the door inside too. These very special wax is not sticky after sometimes and to work later inside the doors will be very easy. Even in thin layer UBS 240 is water resistant and rain, coming in from the window cannot damage. At cars without door trim use instead of UBS 240 the Conservations Wax as perfect solution.
Door outside of before corroded doors, bonnets, boots etc. can be primer before painting with a thin layer of FEROX (1-part Epoxy primer) or M M 30, to prevent any surface corrosion during a longer restoration period.



Removal of rust in box sections

In box sections and cavities in bodywork, as well as in cavities in other metallic structures, we find rust and corrosion. To eliminate this as effectively as possible and to prevent future corrosion for as long as possible, we must first of all know how this corrosion has arisen. Only with a comprehensible diagnosis will we be able to deal successfully with the rust.



Corrosion arises via an electrochemical process which progresses ever more strongly unless specific derusting measures are carried out. The electrochemical process begins as a consequence of condensation forming on inner surfaces, and through condensed water which collects on metallic surfaces. There this dampness is enriched by salts. These salts combine to form an acid which aggressively attacks the metal, and any protective coatings which are present, and in the course of time causes massive damage. In practice it is not possible to prevent the ingress of damp; this is greatly increased if the car is used in winter on salted roads.

On some vehicles, because of the design of the chassis, particles of dirt are thrown up, get lodged and baked hard, and then cause heavy corrosion when they get wet again.

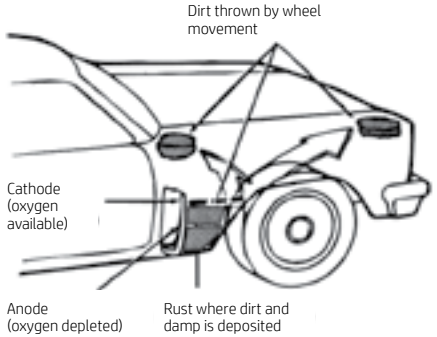
Research has shown that large quantities of water and very high humidity levels are generally found in box sections and cavities.

In these areas the temperatures in summer can reach nearly 90° and when the temperature drops in the night there will be a noticeable increase in atmospheric humidity as humidity

Removal of rust in box sections

in the temperature range from 20-30° Celsius increases by approximately 6.5% for every degree rise. This means that box sections and cavities must be considered as being damp or even wet all the time, day or night.

This often affects classic cars, because in these vehicles active corrosion protection was either wholly or partially absent. This means that welds and seam overlaps are often the



critical weak spots. This deficiency in corrosion protection during the construction of the vehicle cannot be rectified at a later date, because it is inherent to the design.

If the box sections of a car are to be protected, mechanical cleaning and derusting will only be possible if all(!) cavities are opened up. This means that these will also have to be re-welded again afterwards, which then creates further problems because the new welds are unprotected.

Protecting an already-rusted box section only with a sealing layer of protection (e.g. paint or underseal) means that any rust, and the damaging chemicals present in the rust, are merely sealed in and can continue to cause damage. This can never be the correct solution!

The rust, enriched with the damaging chemicals in a layer which is only superficial, causes blisters to form by chemical osmosis, and new, more serious corrosion can begin in them. Therefore it is vital that the rust be removed at the beginning and the damaging chemicals be removed. This is vital before any measures are taken to establish the actual condition of the bodywork, and to replace any heavily corroded sections in order to ensure the long-term stability of the bodyshell.

Removal of rust in box sections

It is useful to look into box sections with an endoscope.

If the bodyshell is sound, rust removal and treatment of the damaging chemicals by means of FERTAN is necessary as a preparation for the final protection which will follow.

To achieve this the product should be injected into all the box sections by means of a cavity injection gun and a 360° probe. Take care to ensure that with a pressure gun the pressure is kept at 7-9 bar and that with a cavity gun it is at 3-4 bar. Use of a hand spray gun is only recommended for doors, bonnets, etc., because this can only be used with a maximum pressure of approx. 1.2-1.5 bar, and that is not sufficient for complete atomization of the FERTAN product in normal box sections. Please note that the product must penetrate into all cavities, seams and double-skinned areas in order to work effectively.

On vehicles with loose flakes of rust which peel off and lie on the base of the box sections, two applications of FERTAN are recommended, because these flakes must firstly be sufficiently loosened that they can later be removed by rinsing with water. For this application you can mix FERTAN with up to 50% water for the first treatment, spray it in and allow it to react for at least 48 hours at 20° C. During this time the vehicle can be used normally. If the temperatures are lower than 20° C, for instance at night, the reaction time allowed should be at least doubled. FERTAN should not be applied at temperatures of less than 5° C.

Rinsing

After the reaction time has elapsed rinse the box sections and cavities thoroughly with water. Use approx 15 litres of water for every litre of FERTAN used, and operate the pressure gun at a pressure of 6 bar and the cavity gun at 4 bar. For this important rinsing do not park the vehicle on a pale surface, tiles, paving stones, etc., because the run-off water will stain them.

Now spray unthinned FERTAN into the stilldamp box sections as described previously, and allow to react again at 20° C for at least 24 hours. Again, the vehicle can be used normally, and the reaction time can be stretched to 6 months without any problem (e.g. in summer).

Before the final treatment of the box section with protective wax it is vital that the box section be rinsed out once more with clean water.
This treatment may seem involved, but only in this way can all rust and damaging

Removal of rust in box sections

chemicals successfully removed from the box section and effectively protected against new corrosion with protective wax.

Operation

Here we would like to explain the operation of FERTAN, particularly in box sections and cavities.
The product has three main constituents, and they facilitate the removal of any Fe3, rust present, as well as mineral salts and acids, via their combined effect. In this way the bare metal is exposed and simultaneously provided with a zinc phosphate coating as a cathodic protective layer. This is then additionally protected by an Fe^{3}-free tannin complex (known as HOPEITE Zn3(P04).2 4H20 and Phosphophyllite Zn2Fe(P04) 4H20. This layer is absolutely insoluble in water and protects the metal for at least six months, during which time the protective treatment of the box section or cavity should be carried out. In order to remove the loosened rust particles as well as the pollutants and damaging substances, the cavity or box section should always be very thoroughly rinsed with water. In this instance it is advisable again to observe the rule of thumb: 15 litres of rinsing water for every litre of FERTAN. The rinsing water used in this process can't cause any new corrosion, because the layer which has been created on the surfaces of the box section is completely insoluble in water, and it should also be kept in mind that the running water thins the electrolytes and lets them run off in the rinsing water, which noticeably hinders the rate of corrosion. Please dispose of rinsing water in an environmentally responsible way after use.

Holes

In order to be able to treat box sections and cavities to the best effect with a cavity gun, all the water drain holes present in the body must obviously be opened up. If they are blocked, covered with underbody protection or are not present, new holes should be made in areas which do not affect the appearance or integrity of the bodywork. When doing this, please firstly obtain suitable sealing grommets and then drill holes of the correct diameter, and while drilling the holes coat the drill bit with grease so that no swarf can enter the box section, as this could cause corrosion later.

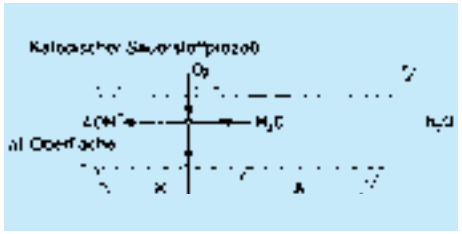
Removal of rust in box sections

Drill the holes in such a way that all the cavities are accounted for, and make notes on a piece of paper to ensure this is the case. If a box section plan is available from the manufacturer, this should obviously be used as a guide.

To ensure that no rinsing water remains in the seams and low points, raise the vehicle with a jack (e.g.) firstly the left front, then the left rear, and so on, and allow the water to run out completely.
When the box section or cavity has been rinsed out completely, it is free of rust and damaging chemicals and after the surface has been dried it can be coated with wax.

Final Protection

When applying final protection materials for box sections and cavities it is important to remember some points other.



Basically, final protection of box sections and cavities should only be carried out at temperatures of over 20 deg C. This applies to both the bodywork of the vehicle and the material itself. When applying a protective wax please observe the instructions on 'Wax Treatment'.

Wax pre-treatment

With PREWAX, a product newly-developed in 2010, it is possible to penetrate welded, spot-welded and overlapped panels completely, and so prevent the otherwise possible contact corrosion in these critical places on a long-term basis.

The spray can, with a pressure of 5 bar and a 360º probe provided, can be easily used in cavities, folds, bonnets, doors, overlaps, etc. Simply run a small quantity along each seam and the product, with its high natural wax content, penetrates it and protects it perfectly and durably, even in the thinnest of layers.

The following pictures show cavity protection wax being applied in several thin layers.

Protective wax application

Protective wax should whenever possible be built up in several thin layers. In the process allow at least 12 hours drying time between coats. In this way the solvents can evaporate and the tiny cracks which unavoidably open up in each coat can be closed up by the following coat. In this way a very stable, durable and long-lasting final protection is built up, which is considerably more stable than a thickly-applied coat which can begin to show cracks again after a number of years. In this way it is similar to paint, where several thinly-applied layers are notably more stable and durable than a thick coat applied in one layer.

The recommended pressure for applying cavity wax protection is 7.5-9.5 bar for a pressure gun and 3.5-4.5 bar for a cavity gun.

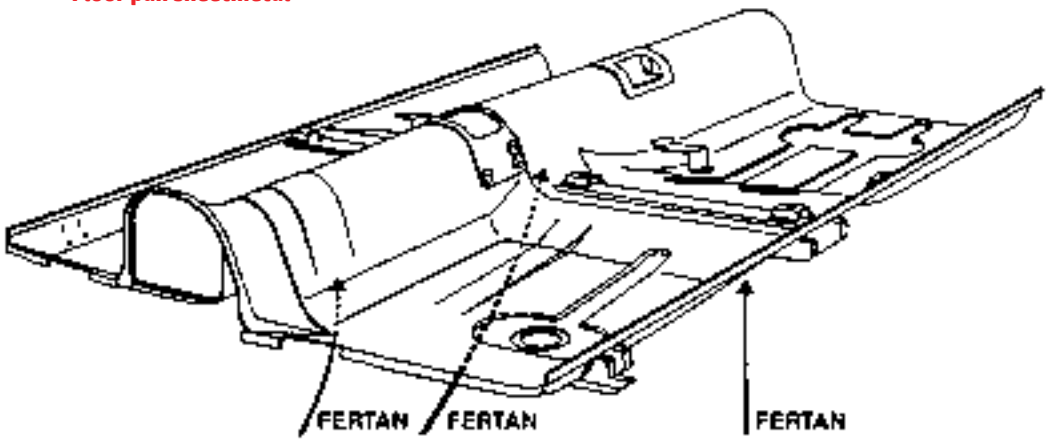
Removal of rust and corrosion in the underbody

1. Firstly the chassis should be cleaned of loose dust, dirt, oil, grease and silicon contamination. A pressure washer is recommended for this.

2. FERTAN is then applied to the chassis while it is still wet, by means of a spray gun or possibly a Schutz gun, at a pressure of approx. 1-3 bar.
The remains of the old underbody protection should be removed as far as possible. This also applies to the remains of PVC treatments, which are often used in the area of engine mountings. Treatments and layers which are securely attached to the underbody may be allowed to remain, because in general no corrosion is present here. However, it should be carefully checked that there are no areas where the rust has lifted areas of the paint and penetrated under it. When restoring a classic car complete removal of the old underbody protection is always recommended. The complete removal of all coatings (e.g. underbody protection) can be carried out via dry ice pressure-spraying. Dry ice pressure-spraying has proven itself as the best treatment preparatory to FERTAN-treatment itself, because the removal of the old layers can be controlled very accurately, and no pollutants find their way into the pores of the metal.
The FERTAN which has been applied should be allowed to act for at least 24 hours, during which time the vehicle may be used as normal, except on salt-treated roads.

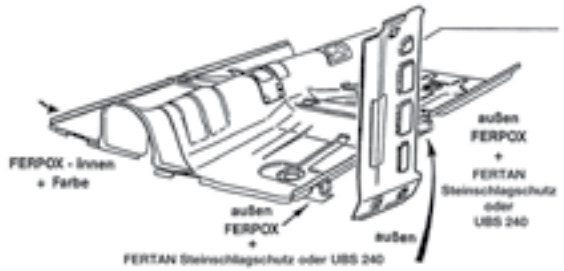
3. Before the final protection is applied, if possible within 6 months of applying the FERTAN, the chassis should again be thoroughly washed with water. If final underbody protection is not being used, the FERTAN-treated underbody is protected from further corrosion by the iron-tannin treatment for a period of 6-12 months.

Floor pan sheetmetal



Coating the rust-free underbody after the FERTAN Treatment

First of all the user should be aware what demands will be placed on the underbody of the vehicle in the future. Only then can the chosen coating produce the desired result, and the restored vehicle be given long-term protection. On vehicles which are only used in summer or which are used primarily for shows, it is often wished to paint the underside in (e.g.) body colour. This paint coat can be very effectively protected by a glass-clear wax, PROTEWAX BP 527.
This layer is also very suitable for painted suspension mountings, steering parts, etc. However, it is not recommended for vehicles which are used all year round and



are exposed to (e.g.) road salt in the winter months. Here a more durable coating must be used. If the corroded underbody has been treated with FERTAN, if must first be rinsed with water – if possible with the use of a pressure washer. Then the appropriate coating can be applied according to the individual situation.

Here are the important decisions to make:
a) Paint in body colour; in this instance paint may be applied directly to the FERTAN layer (according to the manufacturer's instructions), and then a wax is applied to complete the process. When doing so always treat the overlapped joint areas first with PREWAX, and then PROTEWAX BP 527 as mentioned before, or with the extremely resistant underbody wax UBS 220.

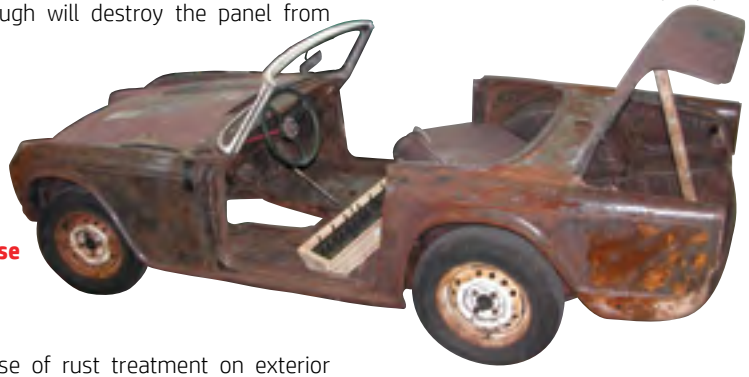
b) In situations where heavy demands are to be placed on the treated panel (for instance year-round usage), FERPOX (a 1 part epoxy primer) or OVER-4 may be used as a base coat but always take care to treat the overlapped joints with PREWAX. These coatings are both overpaintable.

c) If a paint coat is being omitted, there are several choices of coatings that can be used. OVER 4 SPS (black) or OVER 4 SPG (grey) serve as a long-lasting body protection or stone-chip layer – or wax alone (e.g. UBS 220) maybe used.

It is very important to understand that on vehicles which are subjected to flexing or heavy duty as part of their construction (e.g. convertibles), or normal service (e.g. 4x4s), it is recommended always to use a non-hardening coating such as UBS 220. This flexible coating will almost never tear – unlike the coatings that harden. If cracks appear in the underseal coat, that's the ideal breeding place for new corrosion!

Removal of rust from outer body areas

1. When removing rust from outer body areas some important things need to be kept in mind: more than 80% of rust in car bodies begins in cavities, box sections, seams, etc., and progresses from inside to outside, increasing in extent as it progresses. It is therefore vital that removal of rust which is already present must also begin in the cavities – that is to say, from the inside. Only in this way can you be sure that no rust-through will destroy the panel from inside.



Rohkarosse

2. In the case of rust treatment on exterior panels it is absolutely vital to clean the area to be treated BEFORE treatment with FERTAN. It is also important in this process to remove completely the remains of any previous treatments which may have forced their way into the paint layers.If this is not possible, in the case of silicon cleaners, the old paint layer should be sanded right down to bare metal. It is vital that this sanding be carried out BEFORE the application of the FERTAN, because the protective power of the iron-tannin bond produced by the FERTAN is removed by subsequent sanding.

3. In order to remove the pores from the rust-pitted areas of the thoroughly cleaned and sanded body, FERTAN should be applied very thinly with a paint brush. Before beginning the painting process it is important to wash the bodywork thoroughly again. A sponge facilitates this process, and in all cases the use of tools should be avoided, as they could damage the FERTAN coating. After the area has been dried, only a very thin FERTAN film is visible, and some areas may appear completely untreated; this does not affect the action of the FERTAN.

4. The prepared bodywork can now be prepared by applying a paint coating preceded by filler, primer, etc., according to each manufacturer's instructions. The use of an Epoxy primer (e.g. Ferpox, EP filler, etc.) as the first coat is particularly effective.

5. Removable panels such as (e.g.) bolt-on wings should in every case be treated with epoxy primer, and they should be supplied with non-metallic gaskets where they make contact with the next panels.

6. The above-described procedure for removing rust from outer bodywork areas has been tested by leading vehicle manufacturers and is recommended by them and their affiliated official repairers.

Removal of rust from tanks

Because of the use of the additive MTBE (Methyl Tertiary-Butyl Ether) as an anti-knock additive in lead-free fuels, steel and aluminium tanks in vehicles corrode from the inside. In order to remedy this in the long term, an inner coating is practically essential. Degreasing is the first step in the removal of sediment. Empty the tank completely and remove it from the motorcycle or car. Please carefully store or safely dispose of any remaining fuel. Then rinse out the tank completely with water. Next add approximately an eggcup full of washing up liquid and fill the tank approximately half full of warm water. Shake and turn the tank so that sediments are loosened, and finally fill it completely with warm water. After approximately 1-2 hours remove this fluid and take it to an approved disposal station. Then add the appropriate amount of FERTAN alkaline engine cleaner to the tank according to its size (approx. 250 ml for every 10 litres of tank capacity), shake and turn the tank so that all the remaining residue is loosened, and let this solution react again for approximately 1-2 hours. Then empty out the cleaner and catch it in a container. You can use this cleaner for other cleaning jobs – e.g. engine/gearbox and axle cleaning; if the engine cleaner contains large particles it may be cleaned by means of a (coffee) filter. Now wash the tank out very thoroughly with water using lukewarm water for the final rinse.

Now we have the option to remove the rust from the inside of the tank using FEDOX rust remover to get back to bare metal and then stablise the surface with FERTAN or get get straight on with converting the rust using FERTAN. Both methods produce excellent results with surface being smoother if you use FEDOX.

When carrying out all work of this nature wear rubber or protective gloves. In order to avoid damage to the fuel tank and possibly to the ceramic of the sink, always place it on a soft pad. Don't allow the FERTAN products to run out onto pale stones, tiles, paving stones, etc., because it could mark them. Keep FEDOX off painted surfaces and rinse thoroughly and immediately with water (not necessary if the tank is ultimately to be repainted) if spillage occurs.

FEDOX: pour seven litres of water of warm water (60° C) into a bowl or the tank and slowly mix in one litre of Fedox. Then mix in three more litres of heated water. Keep at 20° C for 12 to 24 hours. Tip the FEDOX through a fine filter into a plastic container (it can be used for cleaning tools and components). Rinse out the tank thoroughly with tap water and dry. The surface of the metal is very active at this time and you should apply a protective coat immediately. Bright steel in the normal UK conditions will start to rust after fifteen minutes, just as it would from shot blasting.

If you are using FERTAN do not dry the tank. Into a damp tank put about 200ml of FERTAN rust converter for every 10 litres of tank capacity. Turn the tank, rotate it and invert it so that it becomes completely coated on the inside. While doing this take extra care that in the case of motorcycle tanks the internal frame, and/or baffles if applicable, become fully coated – then let the fluid run completely out into a clean container. Next allow the tank to cure for a minimum of 24 hours at a temperature of 20 deg C (maximum six months), to facilitate the complete reaction with the oxide. Then rinse the tank thoroughly with water and reintroduce the previously saved quantity of FERTAN rust converter, and then completely fill the tank with water. Once more allow the tank to cure for 12-24 hours and then empty it completely and rinse it very thoroughly with water until no more black particles are visible in the water. Clean the filler cap, petrol tap, etc. immediately with clean water. Clean off any possible spots which land on the painted surface immediately with water (not necessary if the tank is ultimately to be repainted). In this time-consuming and dirty way a complete and cost-effective derusting can be achieved without removing sound material. After it has been dried the tank will be fully rust-free.

In the case of other tanks and types of tanks, e.g. heating oil and ships' tanks, etc., please ask for our free instruction manual.

Tank interior coating

The tank should always be degreased and derusted before coating as described on the previous page, in order to ensure optimal adhesion of the coating.

The coating is carried out by means of a 2-pack epoxy resin which can withstand the constant contact with fuel and oil, but is also resistant to alkalis and various acids.

The product TAPOX, delivered in a 500 ml tin, is mixed thoroughly before use with the required hardener, TX 10. The mixing process can be carried out in the original container, if possible with a small beater or for example with a screwdriver and a beater.

Mask off the outside of the tank in order to avoid contaminating the paint (not necessary if the outside of the tank is to be painted). Remove the petrol tap and plug the hole by means of sticky tape, a cork, etc.

Put the well-mixed TAPOX and TX 10 into the tank through the filler hole, seal this securely against leaks and then turn, twist, shake and invert the tank and coat the interior thoroughly. Remove the petrol tap hole plug and allow all the excess product to run out into the original container and immediately place in the fridge at approx. 0 to 4 deg C max. Reseal the petrol tap hole.

Now allow the coating to dry for approx. 30 minutes, and then remove all plugs, place the tank with the large opening downwards and direct a gentle flow of air into the tank through the large opening and allow it to exit through the smallest opening (e.g. the petrol This can be achieved with a compressor or with another kind of air pump, and the pressure must not be allowed to exceed 0.2 – 0.4 bar, so as not to damage the still-soft coating. Run the air for 3 hours.

Next, the tank should be allowed to dry thoroughly for at least 72 hours at a temperature of approx. 20 deg. C; do not warm the tank additionally during this period. After it has dried the TAPOX coating is resistant up to a temperature of 70 deg. C, so if the exterior of the tank is to be painted the paint oven temperature should not exceed 70 deg. C.

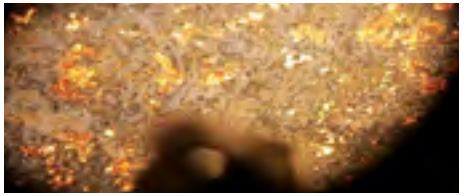
Note: The quantity of tank sealant which remains in the original container can be used for any other application on metal, and provides an extremely resistant and overpaintable surface on it. (E.g. garden fences, banisters, cars, etc.)

Usable life is however 12 hours max, when kept below 4 deg. C.

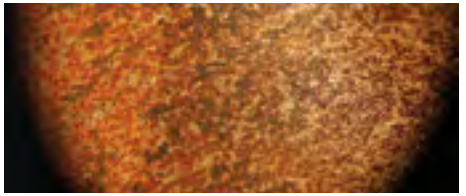
The stream of air which has to be played through the tank during the drying process has the great advantage that the thinners contained in the product, which are heavier than air, can exit through the large opening (which is pointing downwards), and do not affect the still-soft coating during the drying process (thixotropic effect).

Important: The exiting airflow can cause an explosive effect!
Ensure adequate ventilation!
No smoking – no fire – no naked flames.
Do not use any electrical equipment (e.g. vacuum cleaners)

Additional information:
Please remove any splashes or spots imme diately with thinners (universal cellulose thinners).

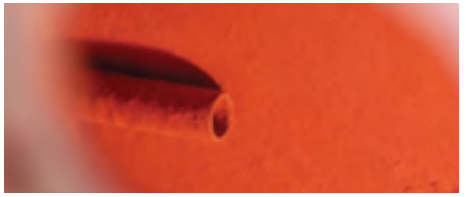


Tank with corrosion and sediment



After cleaning

After derusting with FERTAN



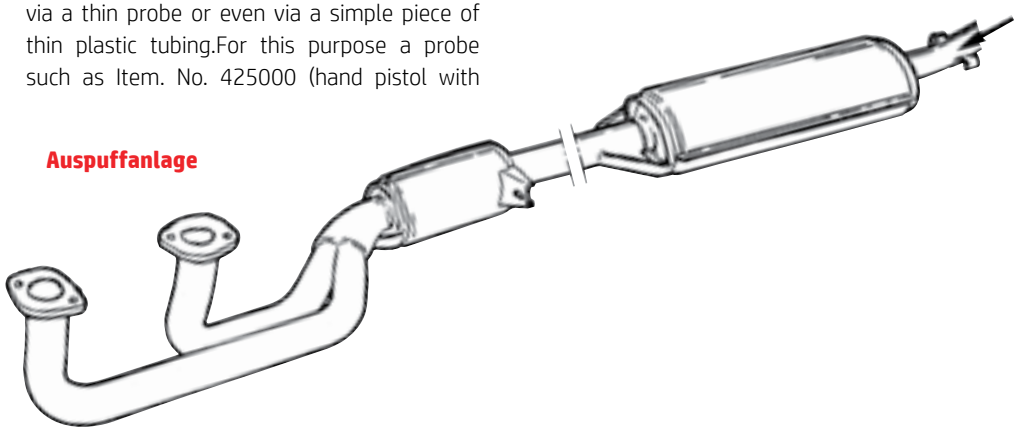
After final coating with TAPOX

For further technical information:
FERTAN GmbH
0681 710 46
verkauf@fertan.de
www.fertan.de

Rust in exhaust system

Expensive exhaust systems often rust from inside outwards, for instance when cars remain for longer than expected at the dealer's, or in the case of classic cars which are kept in exhibition halls. Even when vehicles are standing inside in the garage in winter, the exhaust systems can rust through.

1. The FERTAN is sprayed into the back box via a thin probe or even via a simple piece of thin plastic tubing.For this purpose a probe such as Item. No. 425000 (hand pistol with



Auspuffanlage

60 cm long probe) is inserted between the baffles as far as possible, and then FERTAN is sprayed gradually in as the probe is withdrawn. As FERTAN is water-based, it combines with the condensation that accumulates, to form a corrosion-inhibiting solution which prevents rusting-through for a considerable period.

2. As FERTAN is non-inflammable, the engine can be started at any time without risking any damage or impairing the effect of the FERTAN, as long as the temperature in the back box does not exceed 400 deg C.

3. FERTAN can be used for other exhaust system parts only if they can be coated mechanically – i.e. by means of a probe. Drilling into any possible intermediate silencer boxes is not recommended.

Removal of rust in outer bodywork areas, chassis and chassis frame parts

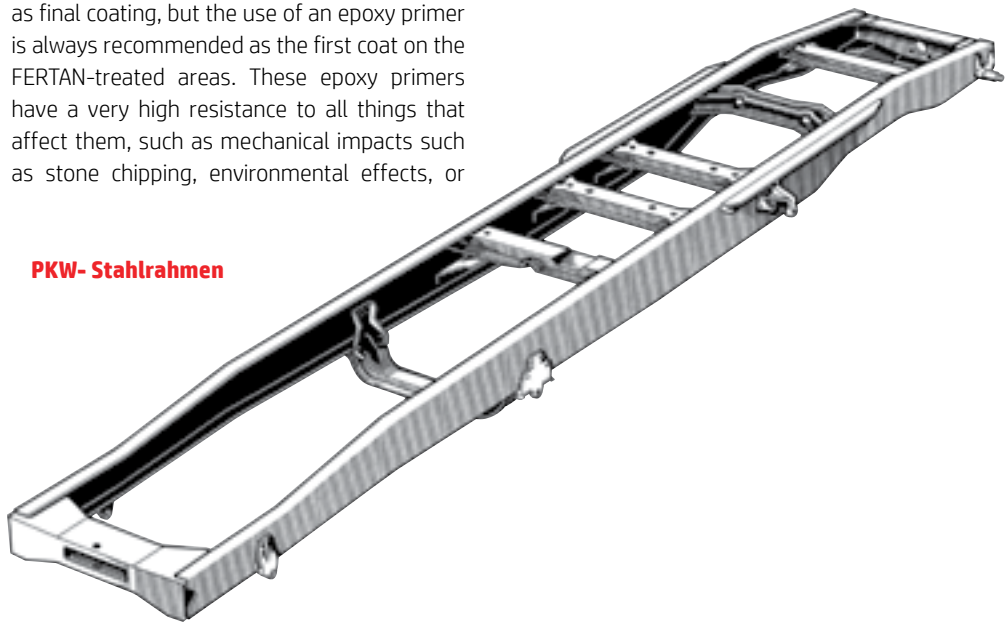
1. First remove all loose rust and dirt from the chassis, and take special care to remove traces of oil, grease and silicon. For this purpose a high-pressure cleaner is recommended.

2. FERTAN is applied to the still-damp chassis by means of a brush, roller or spray at low pressure (approx. 1-3 bar). In hollow and box sections FERTAN should be sprayed into the inner surfaces, if possible with a probe or 360 deg spray nozzle. FERTAN should be allowed to work for at least 24 hours in these areas, and during this period the vehicle may be used as normal.

3. Before the final protection is applied, if possible within 6 months of the application of the FERTAN, it is important to spray the chassis frame again thoroughly with water.

4. Any colour and any kind of paint may be used as final coating, but the use of an epoxy primer is always recommended as the first coat on the FERTAN-treated areas. These epoxy primers have a very high resistance to all things that affect them, such as mechanical impacts such as stone chipping, environmental effects, or chemical corrosion and dampness.

5. As FERTAN does not attack plastic, rubber, copper, etc., it is not necessary to dismantle wiring looms or hydraulic and brake lines. The procedure described above offers a considerable cost saving over the practices used hitherto, such as sandblasting, and a result of at least equal effectiveness is achieved. Experience shows that chassis frames derusted with FERTAN are protected against new corrosion for considerably longer than shotblasted ones.



PKW- Stahlrahmen

Derusting windscreen/ window frames

On many older vehicles rust builds up under the windscreen and window frames.
Affected by dampness which finds its way in, in conjunction with aggressive chemicals from the atmosphere, first of all the paint layer and then the protective coatings underneath are damaged, and finally the phosphate coating my be removed. Then the destructive process inevitably begins, and will lead to further corrosion if it is not halted. This problem is visible when damp and possibly rainwater leave brown stains trailing from the window frames onto the bodywork. Unfortunately these visible signs are not always present in the case of modern (therefore bonded) screens, and the damp remains, causing corrosion, in the seams.
By the time this happens the protective layers situated behind the window frames are already destroyed and must urgently be replaced if greater rust-through is to be avoided.

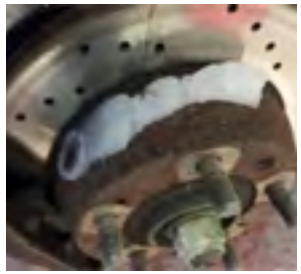
Please treat these areas as follows:

1. Remove glass.
2. Remove all traces of any remaining sealant.
3. Mechanically remove superficial rust as far as possible..
4. Thoroughly clean surface with a silicon remover (please do not use any other product, in particular NO mineral products).
5. Apply FERTAN with a small brush to the affected areas and allow to react.
6. After the FERTAN® has been allowed to react, clean the surface with water, but do not allow run-off of FERTAN or water to dry on the bodywork (to avoid marking the paintwork).
7. After drying treat the area with appropriate coatings, primer and paint, and replace the glass.

By this process you are ensuring that the previously-existing rust is removed and via the treatment and painting the metal is protected. In this way the protection will last as long as the coatings used and/or the final paint coating remain stable.

Derusting and treatment of
Brake rotor/ drums/ calipers

Ph-neutral, solvent-free, environmentally-friendly rust remover ideal for vertical surfaces. Gel version of FeDOX®
Object: 1987 Porsche 924S March 2015 Time: 30 Minutes (Plus 3 hour wait time) (BMW approved product. OE #: 83 19 2 357 552)



1. Fedogel® applied. Absolutely no surface preparation required! Same process used with caliper. Wait time = 3 hours.

2. Condition of rotor and caliper after 3 hours. Next step: Clean surfaces with water to neutralize.

3. Primed and painted. Beautiful finished result!

Derusting
crews, nuts and bolts

In many restoration situations rusty bolts, nuts and screws will be replaced with new ones. This make sense, if there are available in original size and specification. But what is to be done in case of very special bolts ?
We all know ISO norm-standards, but in the case of historic cars and bikes we will find BSW, BSF, BA, UNC or the special UNF thread or other specials. In that case it becomes difficult to replace, many of these bolts are not available or difficult to source.

In this case the originals will have to be restored. For this the following products need to be used: FeDOX a concentrate for de-rusting in a bath and M M 30 for the long term protection.
An important consideration if you are replacing is the tensile strength of the replacement.

Using stainless steel bolts in brake parts promises better, long lasting durability connected with higher corrosion protection, but the reduced tensile strength means they are unsuited. A 10.9 class bolt of 8mm correctly torqued will have a tensile strength of 1.000 N/mm2 and a yield point of about 900 N/mm2. A stainless steel bolt of the same dimension will have only half these strengths.

Therefore it is not surprising if examiners refuse technical approval if stainless steel bolts are used in critical components.
On the heads of standard bolts and nuts the strength specification is marked, on socket screws mostly indistinctly. Please always note the requested torque. After TIGHT – comes only OFF.

Extension bolts should always only be used once. After opening they will be deformed and any future use is limited.

Aluminum bolts are originally fitted only for very special use and they should be used only for these very special purposes. Aluminum bolts in steel shows strong sediments in the threads, aluminum-hydroxide, a degree of oxidation. Combinations of stainless steel and carbon steel, or aluminum and carbon steel will have always the risk of corrosion.

Even after treatment corrosion on bolts and nuts is a continuing problem. At every maintenance, especially if stainless steel will be used, the thread should be protected with an appropriate lubricant. Carbon steel bolt threads should be lightly oiled. If bolts are used on non safety parts, e.g. body parts etc. a thin washer in plastic can prevent any kind of contact corrosion.

Product catalog

28 +

COUNTRIES

You can buy a bottle of FERTAN.

40 +

YEARS

Experience in providing Rust Solutions

11 +

PARTNERS

Exclusive Distributor of FERTAN Products in 15+ countries

1500 +

DISTRIBUTOR

Help us reach customers across 28+

10 +

MILLIONS

Customers who have trusted FERTAN for Rust Solution

4,4 /5

RAITING

FROM 250 Customers Reviews on Amazon.de

* 02/2018

MADE IN GERMANY

MINIMUM EFFORT. MAXIMUM RESULT.

FERTAN Derusting

FERTAN ®

Rust Converter 30 ml

High-tech advanced rust converter. Brush included for quick and easy application. Price eff ective solution for small scale applications.

ItemNo.

20002	French
20003	Dutch
20004	English
20010	Polish

FERTAN ®

Rust Converter 1 l

Standard 1 Liter rust converter bottle, is the bestseller. All commonly available underbody protection and cavity injection guns can be fi tted on the bottle. Exclusive spray head are also available. item no. 8011501

ItemNo.

22602	French
22603	Dutch
22604	English
22610	Polish

FERTAN ®

Rust Converter 250 ml

Popular among household DIYers. The 250 ml bottle is inclusive of spray head and brush for extensive variety of applications.

ItemNo.

22001	German
22004	English
22005	Italienisch

FERTAN ®

Rust Converter 5 l

Perfect for heavy usage. The 5 Liter rust converter is sought after product by workshops and industrial scale use. 5 Liters can help derust surface area of up to 60m².

ItemNo.

22830	German / English
22802	French
22803	Dutch

FERTAN ®

Rust Converter 250 ml

A spray bottle, comes in box package with Euro hooks, suitable for display.

ItemNo.

22202	French
22203	Dutch
22204	English
22210	Polish

FERTAN ®

Rust Converter 50 l

A 50 Liter container barrel weighing 60 Kg. Suitable for medium scale application. Popular among autobody shops.

ItemNo.

23030	German / English

Cavity protection wax, transparent

PREWAX Pre-treatment wax 500 ml

500 ml Spray with a probe. With extremely low viscosity, PREWAX is a precisely engineered for seam penetration pretreatment of welded seam, overlapping joints of box section, folds and underbodies.

ItemNo.

26202	French
26203	Dutch
26204	English
26210	Polish

Cavity protection wax Spray Can 500 ml

Developed to meet the high standards of automotive industry. Cavity wax is perfect for preserving cavities of the vehicle. Very high quality wax with resin elements for optimal coating of body cavities, particularly after derusting with FERTAN®.

ItemNo.

28202	French
28203	Dutch
28204	English
28210	Polish

Standard Can 1 l

Developed to meet the high standards of automotive industry. Fits all normally-available underbody protection and cavity injection guns. Cavity wax is perfect for preserving cavities of the vehicle. Very high quality wax with resin elements for optimal coating of body cavities, particularly after derusting with FERTAN®.

ItemNo. 1 l Standard Can

28402	French
28403	Dutch
28404	English
28410	Polish

ItemNo. 5 l canister **(not shown)**

28630	German / English

Corrosion prevenative Grease

Corrosion preventative Grease

FERTAN Anti-Corrosive Grease is a very special protection grease for vehicles and
machinery. An important characteristic of the grease is application at room temperatures ca. 20° C. It has enormous creep-ability and high temperature resistance. The grease is useable without heating-up as a spray with special 360° probe and from bigger cavity pressure guns and probes.
Through the enormous creep-ability the grease penetrates folds, overlapping parts anddoubled plates several centimeters with very good adhesion to protect these areas. At the same time the formulation ensures that the grease is stable at higher temperatures So no runoff, no soiling The grease remains in/on the car body. The elasticity ensures it moves with the car body. The product is compatible with many, almost all pre-existing protection coatings: as stone chip, underbody- or cavity waxes and guarantees great protection FERTAN Anti-Corrosive-Grease is ideal for restoration, repairing and reconstruction of historic cars but is also perfect for protecting everyday vehicles. Also for agricultural machinery, construction equipment, HGV etc.. If you have any questions please contact our technical support section.

ItemNo
500 ml Spray
28130 German / English

1l / 750 ml
28330 German / English

10l bucket
28530 German /English

Underbody protection

UBS 240 Unterboden Protection Wax Spray 500 ml

500 ml Spray, Transparent/ amber coloured. The premium, Underbody protection wax is a extremely tough and elastic wax with optimal resistance. The wax provides a long-lasting protection against stone chipping and corrosion on underbodies. The UBS 240 Spray is easy to use and gives professional results.

Standard Can 1l

1 Liter for Spray Guns. Transparent/ amber coloured. The premium, Underbody protection wax is a extremely tough and elastic wax with optimal resistance. The wax provides a long-lasting protection against stone chipping and corrosion on underbodies. The UBS 240 is easy to use and gives professional results.

ItemNo.
500 ml Spray
27204 English

1 l standard can
27404 English

(not shown)
5 l canister
27630 German / English

Wax & Grease Remover

Wax- & Grease Remover

To dissolve wax and grease from surfaces. Universal cleaner to remove from surfaces grease, oil and wax.
At painted surfaces or any other metal proof at not visible parts.

ItemNo.
500ml Spray
29930 German / English

Stonechip protection Resin Based
Stonechip protection Water Based

Bodywork protector and stonechip protection with complex wax formulae, optimum adhesion to body surfaces and is overpaintable.

Bodywork protector and stonechip protection, grey

ItemNo.
500 ml spray can
25104 English

1 l standard Can
25204 English

Bodywork protector and stonechip protection, black

ItemNo.
500 ml spray can
25304 English

1 l standard can
25404 English

Bodywork protector and stonechip protection AQUA, black

With very special advantages for high value and classic cars with special additives and low solvent. Exceptional and highest protection with long-term stability for underbody, wheel arches etc.

ItemNo.
1 l standard can
25604 English

Tank Coating

Tank Restoration Set

Tank-Inside-Sealing and Cleaning Set

For metal fuel tanks with Volume about 22 - 40 liters, according to the construction.

ItemNo.
24504 English

Tank Restoration Set mall
- Tank cleaner (degreaser) 500 l
- FERTAN Rust converter 250 ml
- 2-K protection TAPOX 445 ml
- 2-K Metalkit 56 g

ItemNo. (not shown)
24404 English

Tank Restoration Set large
- Tank cleaner (degreaser) 1 l
- FERTAN Rust converter 1 l
- 2-K protection TAPOX 890 ml
- 2-K Metalkit 56 g

2-K Epoxy Putty 56 g

2-K Epoxy Kit

For quick repairs of:
- Torn threads
- Pumps and housing
- Tanks and containers
- Hard plastic and brick

ItemNo.
23930 German / English

TAPOX 2 - K

2-K Epoxy Coating small

With Hardener, useful for all modern fuels (ethanol)

ItemNo.
24030 German / English

- 160 ml tin TX-10 (Hardener for TAPOX)
- 285 ml tin TAPOX

TAPOX 2 - K

2-K Epoxy Coating larg

With Hardener, useful for all modern fuels (ethanol)

ItemNo. (not shown)
24330 German / English

- 320 ml tin TX-10 (Hardener for TAPOX)
- 570 ml tin TAPOX

Specially engineered for application on variety of tanks like, fuel tanks made of aluminium or steel for vehicles, ships or water tanks.Also widely used in the industry for coating concrete fl oor that are subjected to lot of wear.

The TAPOX 2-K Epoxy coating comes in a container of the size large enough to mix the TX-10 hardner. The TX-10 is of the same quantity required to harden the TAPOX.

Tank Volume: The **small TAPOX 2-K** container (285 ml TAPOX / 160 ml TX-10) or **small Tank Restoration set** is suffi cient for treating the tank volumes between 22-40 Liters. While **the larger TAPOX 2-K** container (570ml TAPOX / 320 ml TX-10) or **larger Tank Restoration set** is suffi cient for tanks up to approximately 80 Liter in volume.

Derusting

FeDOX

Derusting concentrate

A specially developed product for derusting the inner surfaces of tanks and for steel parts. It completely removes the oxide layer exposing bare shiny metal. The solution can be diluted till 1:10, without losing effi ciency.

ItemNo.
1L bottle
23630 German / English

5 L canister (not shown)
23730 German / English

FeDOGEL

Rust remover gel 750 ml

A rust remover in form of gel, suitable for vertical and hard to reach surfaces of iron and steel. The rust can be easily removed by applying 3-5 mm fi lm on the rusted surface.

ItemNo.
23530 German / English

Multi-Oil

Spray Can 400 ml

Multifunctional spray for cleaning and care of metal parts and plastics, for lubrication and corrosion protection of metallic surfaces. Prevents ice-locked cylinders and displaces moisture on electronic components too.

ItemNo.
85030 German / English

H102

Aluminium cleaner

Special cleaner for aluminium, stainless steel and galvanised surfaces. Stops aluminium oxidation immediately! Surfaces are cleaned deep down to their pores without changing them physically.

ItemNo.
1.000 ml spray bottle
73701

5 l canister
73801

Ferpox 1 - K

Epoxy Primer

The lead and chromate free, 1-K Ferpox Epoxy Primer is exceptionally durable on surfaces that are subjected to heavy wear. It can withstand temperature changes from -40°C to 250°C. It can be either sprayed or applied using brush. It can be over painted with any type of 1K and 2K paints.
Colour: Basalt Grey RAL 7012

ItemNo. 800 ml Dose

24602	French
24603	Dutch
24604	English
24610	Polish

ItemNo. 2 l Dose **(not shown)**

24702	French
24703	Dutch
24704	English
24710	Polish

Ferpox 1 - K

Spray Can 400 ml

The ready to use, aerosol can provides an optimum thickness to protect the surface from wear. It is ideal for small scale application.

ItemNo.
24830 German / English

MM30

Spray Can 400 ml

Multi Metal Coating is based on a unique Aluminium-Titanum-Zinc formula and acts as active cathode for long-term protection. It provides perfect adhesion to the underlying surface and is over paintable with any commercial 1 or 2 part lacquers and paints. Correspond to DIN EN ISO 1461. Useful for car body, disc break and drum, steel frames, heating systems, industrial use. High resistance in salt fog.

ItemNo.

26030	German / English
26002	French
26003	Dutch

Conservation Wax

FERTAN Conservation Wax is a universal and as thin film clear protection wax and after hardening, ca. 60 minutes at 20° C, not sticky. It is a solvent-based wax-dispersion and useful for conservation of different materials, up to car bodies, but too for cleaned engines, gearboxes, aluminum- stainless steel parts and painted surfaces. Very useful as temporary protection of present patina.
It forms a protection film for transport, even sea-transport, overwinter and stocking.
Of parts, agriculture machineries etc. On painted surfaces compatibility with each paint should be proofed.
To remove the wax use FERTAN wax-cleaner.

ItemNo.
500 ml Spray
29130 German / English

750 ml bottle
29330 German / English

10 l bucket
29530 German / English

Brake-Kit

Product assembly for quick de-rusting of brake discs, brake drums and calipers

Content: (Suffi cent for 1 vehicle or 4 brake systems)

- 750 ml FeDOGEL GEL for de-rusting
- Brush
- Sponge
- 400 ml spray can MM 30 Multi Metal coating (temp. resistant up to 300 deg. C; Colour silver)

ItemNo.
23430 German / English

Underbody Protection-Set

Underbody protection wax is a extremely though and elastic wax with optimal resistance. The wax provides a long-lasting protection against stone chipping and corrosion on underbodies. The UBS 240 is easy to use and gives professional results. Specially developed for underbody and cavity protection.
Paired is specially developed spray gun. Suitable for all standard 1 liter Specially developed for underbody and cavity protection. Suitable for all standard 1 liter bottles. Comes with standard short nozzle and 60cm probe with 360° nozzle.

ItemNo.
27904 English

Cavity Protection Set

Developed to meet the high standards of automotive industry. Cavity wax is perfect for preserving cavities of the vehicle.
Paired with the cavity wax is specially developed spray gun. Suitable for all standard 1 liter Specially developed for underbody and cavity protection. Suitable for all standard 1 liter bottles. Comes with standard short nozzle and 60cm probe with 360° nozzle.

ItemNo.
28904 English

GRAND PRIX
Wheel cleaner
Convincing cleaning power at aparticularly reasonable price.

ItemNo.
500 ml spray bottle
82101

1.000 ml spray bottle
82201

Engine cleaner
Anti-emulsifi cant! Separates oil/ grease and water, does not attack paint, rubber, plastic, etc.

ItemNo.
1.000 ml spray bottle
79704

5 l canister
79801

Wheel cleaner
The best cleaning power. For the best and simplest wheelcleaning, even from cooling slots and ridges. Also for treating very dirty alloy and steel rims and plastic hubcaps.

ItemNo.
1.000 ml spray bottle
70201

5 l canister
70301

Universal cleaner (plastic)
Eff ortlessly removes deposits, marks, oil, grease,etc. from plastic and man-made materials. Ideally suited for cleaning and treating plastic such as: dashboards, doortrims, coverings,bumpers,etc. Also for gardenfurniture, kitchens,etc.

ItemNo.
1.000 ml spray bottle
80201

5 l canister
80301

Special Wheel cleaner
Specially developed wheel cleaner for chrome spoked wheels and chromed or highly polished aluminium and steel wheels. With highly refl ective eff ect. After cleaning, the chrome looks as if it has been freshly polished! Completely acid-free and does not attack the chrome of the spokes or fi ttings on spoked wheels.

ItemNo.
1.000 ml spray bottle
78701

5 l canister
78801

Insect Remover GEL
FERTAN Insect Remover GEL easily gets rid of insect remains from glass, painted surfaces and chrome. FERTAN insect remover GEL quickly penetrates surface contamination, such as dried insectresidue, which can then easily washed off.

ItemNo.
1.000 ml spray bottle
70701

5 l canister
70801

Cabriolet/convertible
roof cleaner
Simple cleaning of convertible-tops, reliably removes dirt, deposits, staining, etc., from plastic or composite tops. Does not attack adhesives used in top.

ItemNo.
1.000 ml spray bottle
81201

5 l canister
81301

Upholstery foam cleaner
Very eff ective for cleaning and care of upholstery and cloth.

ItemNo.
600 ml spray can
81730 German / English

Motorbike cleaning
Gel
Removes dirt, grease and oil deposits from all motorcycleparts. Even stubborn dirt is easily removed. The product is acid-free and does not attack nished surfaces, pH 8.2.

ItemNo.
1.000 ml spray bottle
81701

5 l caniser
83801

Tyre sheen cleaner
Optimum cleaning and care of all vehicle tyres. Product foams up and produces a mattsilk sheen. Dirt is automatically removed in the process. AutoBild test result: GOOD

ItemNo.
600 ml spray can
81851 4-languages

Glass Cleaner
FERTAN glass cleaner is a multi-purpose concentrated alcohol-based cleaner for all smooth and washable surfaces. FERTAN glas-scleaner gives streakfree cleaning of glass and is useful too for ceramic, plastic, and chrome fi ttings.

ItemNo.
1.000 ml spray bottle
78201

5 l canister
78301

Silicone Remover
Surface cleaning of silicone residues before every FERTAN treatment or paint preparation etc.

ItemNo.
250 ml
77604 English

1 l
77730 German / English

5 l
77830 German / English

Sandblasting and processing equipment

Spray head
for 1 litre standard canisters

with E42 adapter and 60 cm probe with 360° nozzle. Nozzle outlet only Ø 4.2 mm for special applications

ItemNo.
8015001

Sandblasting gun
Sandblasting gun in metal with 1.000 ml aluminum cup and high eff ective air nozzle. Air usage approx.: 200 – 400 Lit /min.Rated pressure: 4,5 bar (70 PSI). Max pressure: 10 bar (150 PSI).

ItemNo.
8017001

Workshop-pressure sprayer
Contents 1.250 ml with scaling Plastic coupling, also for alkali-necleaners.
Also for uphand spray

ItemNo.
8016001

Air hose wire spiral
For all usual in te trade air pressure guns and compressors. Connectors 1/4“ quick coupling ans socket. Inside diameter: 5 mm, outside diameter: 8 mm, Polyethylene PE

ItemNo.
Length 5 m 8050101
Length 10 m 8050201
Length 15 m 8050301
Length 25 m 8050401

Spray gun
1000 adjustable

With 250 mm adjustable spray lance and adjustable pressure. Platinated metal for carbody and object cleaning. Cup 1.000 ml aluminum. Rated pressure: 5 – 6 bar (90 PSI) Max. pressure: 10 bar (150 PSI)

ItemNo.
8013001

Tyre inflator VS
Tyre infl ator with valve connec-tor in metal.Ø 60 mm diameter gauge and anti-shock protection. Gauge 0 – 15 bar (0 – 220 PSI) (0 – 1500 kPa). Rated pressure: 6 bar (90 PSI). Max. pressure: 10 bar (150 PSI).

ItemNo.
8019001

Air pressure guns and equipment

Air dust gun
Short version

ItemNo.
8010001

Air dust gun
Long version

ItemNo.
8010101

Air dust gun
mit 4 verschiedenen Düsen with 4 diff erent nozzles

- Round nozzle
- Fan nozzle
- Short nozzle
- Long nozzle
- 1/4“ air inlet

ItemNo.
8010201

Underbody / Cavity protection gun
Specially developed for underbody and cavity protection. Suitable for all standard 1 liter bottles. Comes with standard short nozzle and 60cm probe with 360° nozzle.

ItemNo.
8011501

Cavity pressure gun
Absolutely professional setup with metal accessories. Undercoat nozzle 1.4 mm, underbody protection nozzle, 750 mm probe with 360° nozzle. 1050 mm probe with 360° split nozzle, cleaning set, quick-release coupling for changing probes. Further probes and nozzles available as accessories.

ItemNo.
8011001

Atomizer
Enamelled cup interior. Contents 700 ml.Coupling with 2 spray heads (narrow spread and cone), air fi lling also by means of hand pump. Working pressure: 5 bar, maximum pressure: 10 bar. Not for alkaline cleaners.

ItemNo.
8014001

Guns Paint, primer and spray

Primer- and filler spray gun

Primer and fi ller spray gun in anodized brass for longlife and easy cleaning. With 600 ml plastic cup, jet Ø 2,0 mm. Suitable for waterborne paints, needle and nozzle made of stainless steel.With round- and fl at spray pattern, can be adjusted to any object.

ItemNo.
8012201

Final finish gun „Professionell“

Ø 0,8 mm

Very professional fi nishing gun with nozzle 0,8 mm and 125 ml cup. Also avaiable nozzles in 0,5 and 1,0 mm for round and fl at pattern Nozzle and jet in stainless steel. Useful for waterbased and NANO paint systems.

ItemNo.
8012001

Paint gun

Standard nozzle Ø 1,4 mm

Paint gun with infi nitely variable round and fl at spray for perfect paint work. Jet Ø 1,4 mm in stainless steel - plastic cup 600 ml with outfl ow protection. Useful for paint work at car bodies, metal strutures, but too for plastic and wood.

ItemNo.
8012101

Final finish gun

Ø 0,5 mm

Very special fi nishing gun, perfect useful for small parts, spot repair and for NANO and water based paint. With laterally mounted paint cup for optimized application. Jet Ø 0,5 mm - Nozzle set in stainless steel - paint cup 125 ml aluminium.

ItemNo.
8012401

Oil binding

Quickclean

Oil binding agent of the latest generation

Extremely cost-eff ective through its ability to be used in very small quantities. The product absorbs 2.5 times its own weight. No water is absorbed.Oil and chemicals are separated from the water by Quickclean. Optimum e ectiveness even on wet surfaces, etc.. Because very small quantities are used the clean-up costs are very small too.

ItemNo.
3 Litre FIY-Bag
30001

20 Litre bag
31001

Winter items

Sesam

Deer tallow stick

Deer tallow is a proven natural product, odour-free and completely non-toxic. It prevents sticking and freezing of door and window rubbers. It stops weathering and makes old rubber mouldings serviceable again. Working temperature: 15 – 25° C.

ItemNo.
9011324

Sesam

Vaseline stick

Contents: 25 g, Technically proven product for rubber mouldings. Odour-free and non-toxic. Prevents sticking and freezing of rubber seals. Especially eff ective because of its softness. Working temperature: 5 – 25° C

ItemNo.
9010324

Original Sesam Wintersortiment

Typ A
- 24 deer tallow sticks
- 24 Vaseline sticks
- 16 glycerine sticks
- 27 rost and lock oils
- 18 graphite oils
- 8 universal oils

ItemNo.
9043501

Typ B
- 32 deer tallow sticks
- 16 Vaseline sticks
- 16 glycerine sticks
- 27 rost and lock oils
- 18 graphite oils
- 9 universal oils

ItemNo.
9043502

Sesam

Graphitol

Contents: 50 ml, With special metal nozzle. The quick-unsticker for locks! Frees and cleans dirty and stuck locks and permanently lubricates them. When everything fails, Graphitol helps!

ItemNo.
9021324

Sesam

Lock oil / Frost oil

Contents: 50 ml, Frees frozen locks quickly and reliably; further freezing is subsequently inhibited. Double eff ect: lock is lubricated permanently. Bottle with special, thin nozzle.

ItemNo.
9020324

Sesam

Glycerine stick

Contents: 50 ml, Preservative for rubber mouldings, contains silicon. Liquid product, also usable in frosty weather. Prevents sticking and freezing of rubber seals and mouldings. Simple application by means of a special sponge..

ItemNo.
9012324

Hand cleaners and skincare products

WASCHOLIN
Hand cleaner
Concentrated, alkaline-free and sand-free hand washing paste with skin protector. Removes oil, grease, paint, printing ink, bitumen, etc.Simply rub into soiled hands until the dirt is dissolved. Add some water and then tho roughly wash and rinse again.

ItemNo.
10 Liter bucket
53001

MANUCLEAN
Hand cleaner
Cleaning cream with base of natural raw materials for sparing and gentle skin cleaning. Highly concentrated and high quality product, pH neutral, for light soiling. Distributed by dispenser, e.g. for offi ce personnel.

ItemNo.
500 ml dispenser
52011

10 Liter canister
52021

HANSALIN
Hand Cleaner
Hand-cleaning cream with skin protection and lanolin. Easily and precisely removes oil, grease, tar, paint, print ink and bitumen, chain oil etc.
Rub a small quantity of cream onto the soiled hands. Do not use water. Rinse till the dirt is completely dissolved. Wash off with water or cloth.

ItemNo.
3 Liter bucket
50051

STAR
Hand cleaner
Concentrated, alkaline-free hand cleaner with double eff ect. Easily and sparingly removes oil, grease, tar, paint, printing ink, bitumen, etc.Rub dirty hands with some FERTAN-Star until the dirt is dissolved. Add some water and thoroughly wash again.

ItemNo.
250 ml Tube
51011

3 Liter bucket
51021

10 Liter bucket
51031

MANUPROTECT
Skin protector
Non-greasy, silicon-free, preservative-free wide-range protection. Protects from moisture, bitumen, various solvents, acids, lye, oils, grease, paint, cooling lubricants, hydraulic fl uids, etc. Does not clog pores, skin remains breathable and doesn't dry out. Care and protection ingredients.

ItemNo.
1 Liter bottle
54001

Wall holder with dispenser
(contents not included), with wall plugs and screws

ItemNo.

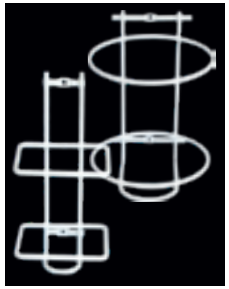
Für 1 x 3 Liter
40002

Dispenser for 1 x 1 Liter
40005

Dispenser for 1 x 3 Liter
40003

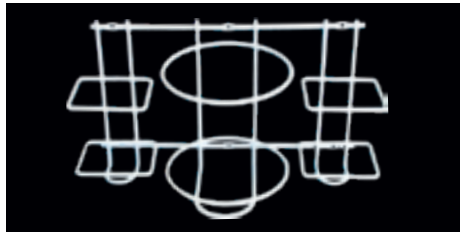
MANUSOFT
Hautschutz
Silicon-free skin care cream which contains anti-infl ammatory and binding substances. Works in quickly, is pH neutral and grease-inhibiting. Specially developed for brittle and dry skin. Use after cleaning hands, periodically during work, and after work, to restore protective coating on skin, as well as to prevent drying out.

ItemNo.
1 Liter bottle
55001



Wall holder angled to hold 1 x 1 litre or Wall holder round to hold 1 x 3 litre
Contents not included, with wall plugs and screws.

ItemNo.
40006



Wall holder
with wall plugs, screws and 3 distributors for 1 x 3 litres and 2 x 1 litre
ItemNo.
40001

K1 BikeClean
Gel

Using cleaners that contain acid damages the material and the environment. Not with BikeClean Gel. Due to its special Gel-Structurethe cleaner adheres brilliantly, even to slick and vertical surfaces and cleans perfectly. Even the most persistent pollutants will be detached residue free.

ItemNo.
1.000 ml spray bottle
74701

5 l canister
74801

K1 ChainClean
Kettenreiniger

The K1 ChainClean is based on the powerful Gel-Formula. Cleaning is fast and through – removes dirt, grease, oil and even stubborn deposits.

ItemNo.
1.000 ml spray bottle
82701

5 l canister
82801

K1 Chainoil
Kettenpflege-Öl

This extremely light running chain oil ensures maximum drive train effi ciency. It stands out due to extreme durability, awesome smoothness
and ultimate quietness.
It reduces the friction between chain and sprocket so the cyclist can really feel the strain reduction. Due to the formula it is very easy to apply and do not run off . Additionally it is a corrosion protective and reduces chain wear.

ItemNo.
100 ml bottle
22401

K1 EASY FIX
Friction paste

K1 Easy Fix is the best way to eliminate unwanted creaks, prevent slippage and prevent corrosion of carbon fi ber or aluminum components.
It avoids having to clamp down on delicate bolts by increasing the friction between parts and creating a better hold.
Suitable for all connections between carbon, steel and alloy (i.e. seat post, stem, pedals, crank).

ItemNo.
50 g tube
60501

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for Professionals

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Fahrzeugakademie Schweinfurt.

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