

revitalization

«« revitalizant »»

revive {xado}?



The term "Revitalization" (from Latin "vita" = life) literally means "returning to life". The revitalization process is based on unique physicochemical processes which, under certain conditions, take place in the friction zone.

XADO offers an entirely new type of chemicals called Revitalizants. Our products bring an entirely new philosophy, a totally new approach to the process of repair. Mechanisms can be revived or reconditioned (revitalized) without disassembly.

As soon as a mechanism begins to operate, it starts to wear out. Eventually, something will fail. Under load, the working surfaces of the parts rub, overheat and wear. Metal particles are simply taken away and wiped off the surface. Having lost weight and shape, the part cannot serve properly and fails.

XADO contains a building material and a unique energy activator which uses excess friction energy to create a new surface. It turns out that overloads, i.e. excessive energy which can ruin the inter-atomic bonds and damage the parts' surfaces can be "withdrawn" and even more - can be used for the growth of other matter crystals! This unique energy activator is called **XADO** Revitalizant. XADO seeks out the surfaces in a mechanism where the damage processes are most active and becomes part of the contact area.

Scientifically speaking, in the first stage, the **XADO** particles, a synthesized combination of several minerals, are introduced into the friction zone via whatever lubricant is present in the mechanism. There, only if friction is present the complex molecules become bro-



SOMETIMES A FRESH PERSPECTIVE
IS REQUIRED TO PRODUCE NEW,
PROGRESSIVE, UNEXPECTED AND
BRILLIANT RESULTS.

ken and start a physicochemical reaction by diffusing into the surface of the metal and changing the property of the metal on the surface.

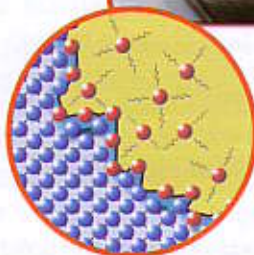
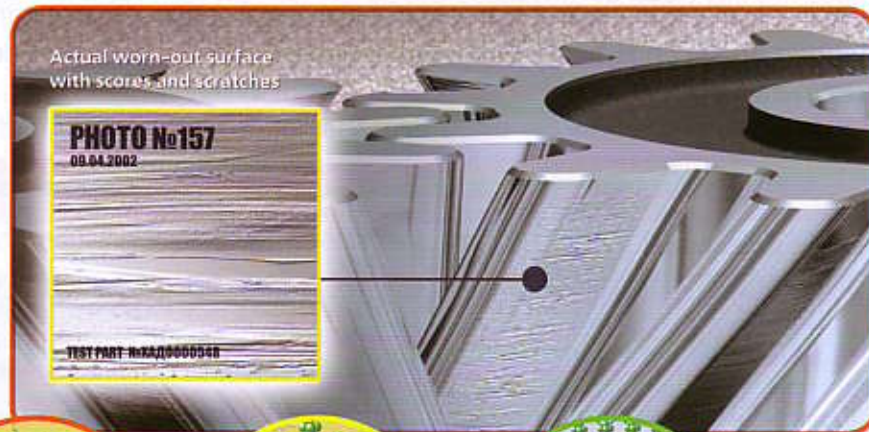
In the next step, the active surface starts to attract the metal shavings that are present in the lubricant and rebuilds itself until the optimal conditions are met. The process continues even after the oil is changed. XADO works only when friction exists, and stops when the friction is gone. Revitalization provides individual adjustment of mating parts, and all rubbing surfaces appear to have been coated with not quite clear glass.

Until now, the only solution for overhaul was mechanical intrusion, requiring down time and lots of effort.

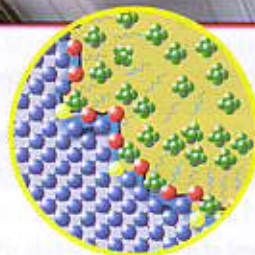
Now there is XADO. We can repair, revitalize and restore optimal mating of moving parts while the mechanism operates as normal. We can do this without down time or mechanical intrusion, just imagine! Moreover, with XADO the service life of the machinery will be two to three times longer.



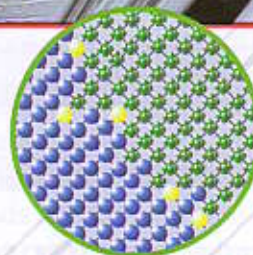
WORN-OUT SURFACE



Wear zone

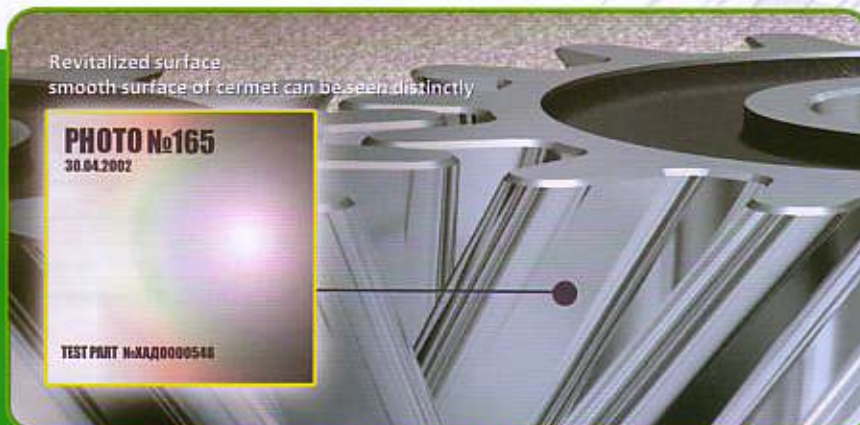


REVITALIZANT acts directly in the wear zone



Revitalized surface

RECONDITIONED SURFACE



auto engine engine



The engine is the heart of your car's performance. And, just like a heart, when it needs surgery, there is no simple solution. The onset of a new noise, high oil consumption, dwindling gas mileage, erratic idling, or blue exhaust smoke is enough to throw any car owner into despair.

Now there is **XADO "Gel Revitalizant for Engines"**. You can repair, revitalize, and restore the optimal mating of the moving parts in your engine during normal operation. XADO allows you to avoid mechanical intrusion or down time, virtually eliminating the inconvenience of repair. It is so simple it can be done in 30 seconds by anyone who can lift the hood of a car and add **XADO** to the oil.

Bushings test results	Standard mode	Treated by XADO Revitalizant
Working surface wear	yes	no
In unloaded area	0-6 μm	wall thickness increases by 0-14 μm
In loaded area	6-24 μm	wall thickness increased by 6-24 μm , growth of 10-30 μm crystal relief is observed
Weight	minus 51mg	plus 25.8 mg
Ellipticity (out-of-circle)	increased	decreased
Roughness	1.8-2.0 μm	0.27-0.36 μm
Micro-hardness (by Brinell)	85-87 HB	105-110 HB (increased by 15-20%)

The data were taken from the report of the Laboratory of bearings of the chair of the air engines design of N.Ye.Zhukovsky State aerospace university (HAI).



We will **change**
the way
you think about
engine treatment



The treatment will significantly improve your gas mileage, oil pressure and cylinder compression, while reducing oil consumption. Exhaust emissions will be considerably reduced. Your engine gains better performance characteristics. Cylinder walls, oil pumps, turbochargers of all types, axles, bushings and bearings will be restored. Cylinder ellipticity will be corrected. Your engine will operate without noise and vibration. In the event of extreme circumstances, you may drive up to 120 miles without oil. Due to revitalization, your engine can be constantly kept in perfect condition. Besides the repair and savings, your car will be protected with **XADO**, you can count on it!

XADO is not an oil additive that changes the chemical composition of the oil. **XADO** instead uses the lubricant as the delivery method to go where friction pairs rub together. It does not change the properties of the oil, but it does change the physical properties of the friction pair, making its surface wear-resistant. In doing so, it increases mass, reducing the friction coefficient.

With all this going on, **XADO** can improve gas mileage by 5% or more, and reduce fuel consumption at idle by as much as 30%. It will make the engine run smoother and quieter while reducing emissions and increasing the mechanical life of the engine. Bonding with the microscopic metal particles in the lubricant, **XADO** creates a new cermet surface that is smoother and much more wear-resistant than the original metal surface.

XADO is not for oil. We use the oil or other lubricant to get where we have to go, where parts rub together and wear away. Once there, the friction created by the engine's moving parts triggers a process which bonds **XADO** with the microscopic metal alloys that are present in the oil. Thus we form a cermet layer that in turn bonds to the metal surfaces of the friction pair. The cermet produces far less friction and allows the engine to run more smoothly and efficiently.



auto engine moto



XADO "Gel Revitalizant for gasoline and diesel engines" are two of our best selling products but a car is not the only mechanical device we are aimed at. Consider scooters, four wheelers, lawn mowers, chain saws, and motorcycles, for instance. **XADO** has engineered a product specifically for small engines, **XADO-MOTO**!

XADO-MOTO is beneficial for all small engines, including home appliances. It works in small engines both with combined and separate fuel and oil systems.

XADO-MOTO application benefits:

- increases service life by at least 3 times;
- reconditions cylinders;
- increases compression;
- reduces harmful emissions;
- protects friction surfaces against wear;
- reduces noise and vibration;
- saves fuel;
- increases engine power.

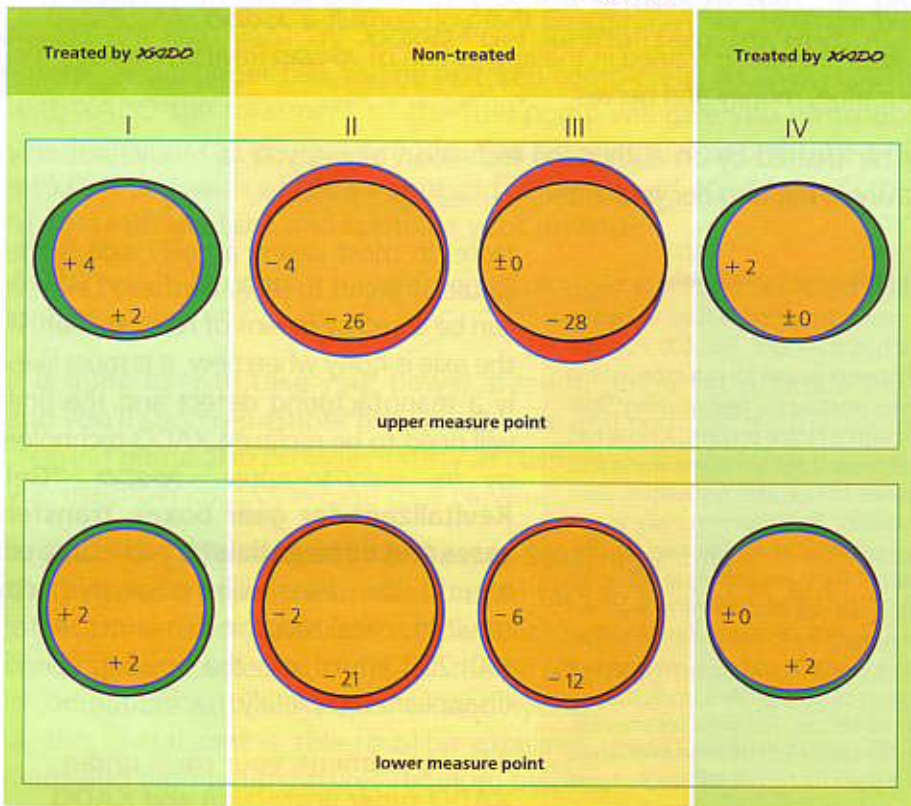
When it is enough to recondition a single cylinder, we have **XADO "Gel Revitalizant for Cylinders"**. It works perfectly within the cylinder wall of an engine, as the piston rubs within the cylinder, representing a friction pair. As the piston and cylinder wall rub together, they wear away microscopic particles. This deteriorates the fit and mating of the parts, increasing tolerances while reducing the efficiency of the engine. When parts wear down, the fit becomes loose and sloppy, increasing the noise level while the fuel efficiency and power of the engine suffer. Until now, the only solution was mechanical intrusion, taking the vehicle off the road for expensive mechanical repairs, tearing the engine down, replacing worn parts, and rebuilding the engine. The life cycle of a rebuilt engine is considerably less than a new one.





A special test for piston/cylinder groups has been made by an Independent Expert Laboratory. A spent engine was chosen for the test. The first and fourth cylinders underwent revitalization. As a result, the compression in the reconditioned cylinders increased by 1 to 1.5 atmospheres. This was achieved in only 15 hours of cold running. In regular mode, the compression increases from 10 to 14 atmospheres during the first 250-300 kilometers.

Test results of the engine



Cylinder circle before treatment
 Cylinder circle after treatment

Metal wear
 Revitalization (a new coating has been formed)

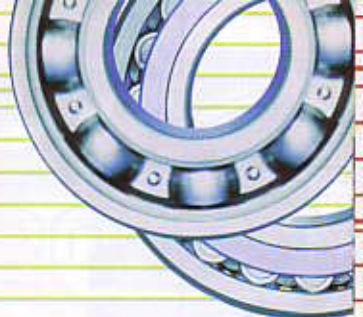
XADO

has the cure
for



any machinery!





A fuel pump is a precision mechanism. As it wears, efficiency is lost. Routine wear of plunger parts is aggravated by any contamination of the fuel. Application of **XADO "Gel Revitalizant for High Pressure Fuel Pump"** allows you to restore the pump elements with no down time and no mechanical intrusion. The harder, smoother surface obtained through revitalization prolongs the service life of the pump by several times. The process requires 300 to 400 miles to complete.

If a warmed up diesel engine of your car refuses to start, do not be upset! XADO will help you. Try **XADO "Gel Revitalizant for High Pressure Fuel Pump"** and plunger pair will be restored completely. As always, when you deal with XADO the treatment of the fuel pump will give you no trouble, and you can drive your car in regular mode. You simply squeeze one tube of Revitalizant into fuel tank with a little amount of fuel. Then add 40–60 litres (10–15 gallons) of fuel into the tank and continue your driving.

As the result you obtain reconditioned plunger that will serve you several times longer.

It is quite easy to take your power steering pump for granted. But lose yours and you'll soon remember how much ease and comfort it provides. Your power steering pump also provides safety. It cushions impacts from the road and helps you maintain control in case of a blowout.

XADO "Gel Revitalizant for Power Steering Pumps" is effective in a very short period of time. Revitalization can take as little as 15 minutes. The service life of the reconditioned unit will be almost unlimited. This Revitalizant has been specially formulated to allow for the different standards of hydraulic fluids. It is compatible with all types of oil and hydraulic fluids. Due to its special formula, this revitalizant is able to offer excellent results in the absence of the high loads and high temperatures required by other **XADO** Revitalizants.



rifled arms weapon



Gun making is the perfect sphere for the interaction of age-old traditions and modern technologies.

The gun barrel and the bullet can be considered as the perfect example to show all of the unique capacities of **XADO technology**. All the necessary conditions are present for the formation of the cermet coating: super-high temperatures, friction energy and the interaction of materials of different strengths

We are pleased to present you **XADO "Gel Revitalizant for barrels of Rifled Arms"**. The product is a quick, clear, illustrative, and most importantly, convincing demonstration of the essence of revitalization. In just a few minutes, after firing only ten shots, you can see the **XADO** effect in action, and observe for yourself that the results are real.

XADO Revitalizant works in the barrel of a gun to improve accuracy and hitting power. A bullet, traveling through a rifle bore, also represents a friction pair. They rub together for a millisecond of time. Treated with **XADO**, the heat and chemical bonding literally change the physical properties of the rifle bore, honing it with precision while reducing friction and increasing accuracy. It is truly an amazing phenomenon!

XADO "Gel Revitalizant for barrels of Rifled Arms" has passed very severe tests at the *Rzhevka* certified test laboratory of firearms. The results of revitalization were examined on different arms, both new, and worn out, chrome and non-chrome barrels. The expert's conclusion was specific: **XADO** Revitalizant has the ability to remarkably improve the accuracy of any rifled weapon.

In one powerfully convincing test a brand new SKS rifle was treated with **XADO**. You might think that nothing could be improved on such a rifle, but after treatment, the accuracy of the rifle improved by 23%. Then 200 consecutive shots



**Striking
power**
of **every** shot
with **XADO**



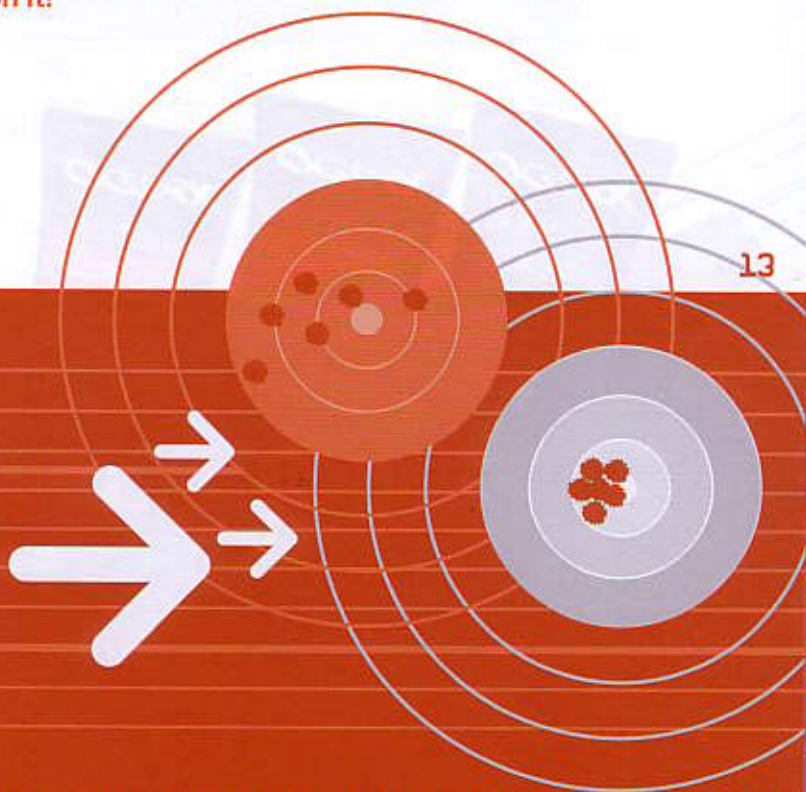
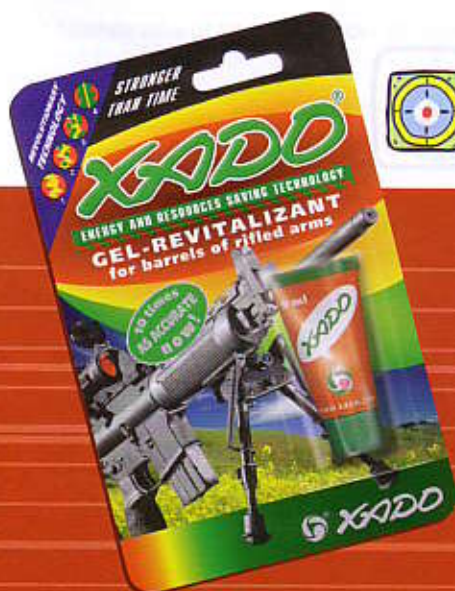
were fired. The barrel became so red hot that the varnish on the forearm began to melt. It was cooled in the most brutal manner, plunged in a bucket of water! The witnesses were amazed to see that even after this abuse the accuracy of the rifle was increased by a total of 46.6%.

Major results of treatment:

- improved accuracy of hits;
- flatter trajectory;
- 10 times increased wear resistance and endurance of the barrel;
- maximum killing power for a given ammunition;
- restoring and protection against wear of the barrel bore surface;
- restoring of the geometry of the barrel bore (complete obturation);
- more spin.

Use of **XADO "Gel Revitalizant for barrels of Rifled Arms"** gives a unique opportunity to any gun owner: you can improve the quality of your weapon inexpensively and quickly, forever!

**XADO will improve and protect your rifled weapons.
XADO won't let you down, count on it!**



auto lubricants



XADO grease is a completely unique new product, designed for application in all assemblies and units operating with use of greases. **XADO** greases are highly adhesive, water-proof and corrosion-proof substances. All **XADO** greases will neither liquefy nor expel at angular velocities up to 10,000 rpm. The amount of the grease for any particular assembly depends on the design and is specified in the service instructions for these assemblies and mechanisms. The patented formula of these up-to date greases is based on a composition of **XADO** Revitalizant and **EP (Extreme Pressure) complex**.

Fields of application: water pump bearings, hub bearing assemblies, ball supports, steering heads, cross-pieces. In industry – any assembly from basic movements to turbines of Nuclear Power Plants.

"PROTECTIVE" **XADO** Grease

This grease is especially effective for wear protection of bearings (up to 10,000 rpm). It compensates wear up to 10 %. This grease is a universal substitute for all regular greases.

It is recommended for new assemblies and parts!

"RESTORING" **XADO** Grease

This grease is especially effective for restoration and wear protection. It compensates wear up to 50% and restores the geometry of parts. It is recommended to remove old grease before using "**Restoring**" **XADO** Grease.



protection
&
repair



"REPAIRING" XADO Grease

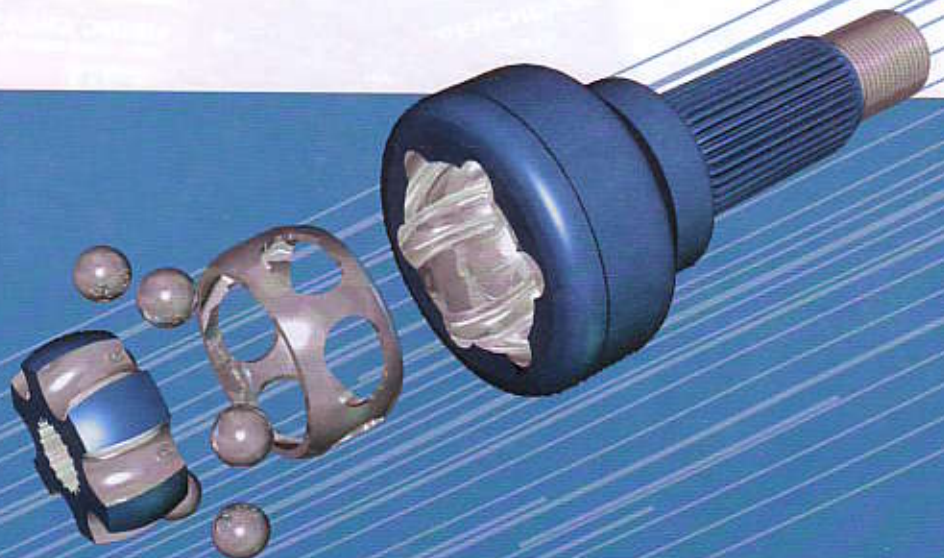
This grease is especially effective for repair of badly worn mechanisms. It compensates wear up to 80%. It is recommended to remove old grease before using this grease. Do not use for new assemblies and parts!

The reconditioning effect (revitalization effect) of XADO greases is a unique one, but the developers took into account that XADO will be compared to the other greases mainly by their lubricating properties. We can show you the results of the comparative analysis, made by the specialists of Repair laboratory of the chair of machine-building technology and machine repair of the State road-transport university (HADI), which prove that by all basic properties XADO greases are 2 times better than the ordinary greases, for example "Litol-24".

Scientific specifications on the methods of the tests according to State standard GOST 9490-75

Greasy properties while testing of the four-ball tester	Grease "Litol-24"	"Repairing" XADO Grease
Welding load (Pc), H	1580	2930
Ultimate load (Pk), H	710	1303
Scuffing index (SI)*	280	435

* Absolute value of the scuffing index (SI) equals 1,000.0. For automobile grease "Shrus-4" this index is equal to 570.0





XADO GREASES

Supergrease



"SPECIAL" XADO Greases

Chemical concern XADO is able to manufacture any grease with any characteristics that may interest your company or enterprise. For example: for air compressors greases, heat resistant greases, marine greases, greases for high speed mechanisms and units (up to 60,000 rpm), etc.

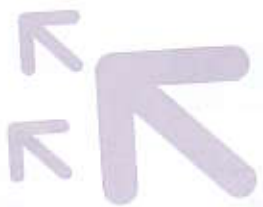
XADO- SUPERGREASE

XADO's latest development, a grease using EP complex, designed for protection and repair of all assemblies operating with the use of greases. By revitalizing effect it is set between "Protective" and "Restoring" XADO greases and repairs 10-30% wear.

XADO Greases are available in 12 ml packet, 125 ml tube, 1kg package.

HIGH-TEMPERATURE GREASES XADO-250 and XADO-300

Technicians know that the process of lubrication with regular greases at high temperatures is a nightmare! The grease has to be "renewed" constantly, i.e. the bearing should be washed regularly, the spent grease should be removed and new grease added, all this involving a production down time. And if you miss the moment the bearing can simply fail, or seize due to burning and coking of the grease.



With XADO for the price

