



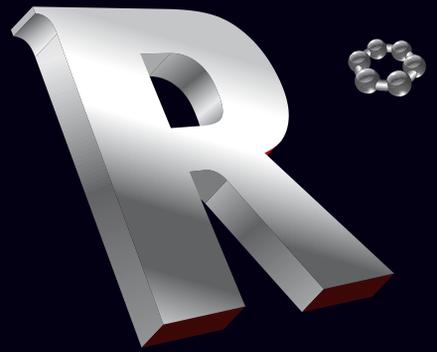
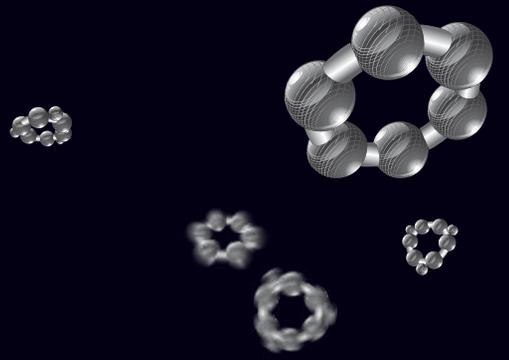
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**STAGE**  
**REVITALIZANT**

*Only one step to perfection!*

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**XADO**<sup>®</sup>  
CHEMICAL CONCERN





EVITA

LIZANT

*Complete engine restoration  
after 1000 km run and  
guarantee of wear protection  
for 100 000 km*



1 STAGE is the most powerful product in the series of revitalizants. Its advantages are **quick-action** (i.e. a high-speed surface modification), **universal application** and **one-stage treatment**.

The advanced new formula allows to **restore completely** (absolutely protect) the engine after 1000 km run and ensures its reliable protection from wear for 100 000 km. As a result of revitalization perfect adjustment of engine parts is achieved and its maximum performance is provided.

Another advantage of 1 STAGE is its **universal application**. The formula perfectly suits gasoline, LPG and diesel engines of any construction and boost degree. The product is also universal as to the engine wear — it allows to restore and keep compression, power and efficiency on the top level for a used car and provides optimal adjustment of the parts and ensures maximum resource for a new car.

**1 STAGE Revitalization is carried out in one step.** It considerably saves time and simplifies treatment. 1 STAGE is a perfect choice for a consumer who appreciates simple application, quick and reliable results.

As a result of 1 Stage application you get an engine with optimal mating, improved capabilities and complete protection!



# New opportunities



**New opportunities of 1 Stage Revitalizant. Single treatment with 1 Stage Revitalizant ensures complete restoration of the engine after 1000 km run and guarantees its reliable protection from wear for 100 000 km.**

**1 Stage Revitalizant is an advanced new product, our third generation of XADO Revitalizants, designed to restore, repair and increase engine life directly while operating.**



## What benefits does 1 Stage Revitalizant bring?

It allows to restore and keep compression, power and economy at the highest level for a used car and to provide optimal adjustment of parts and maximum life span for a new car.

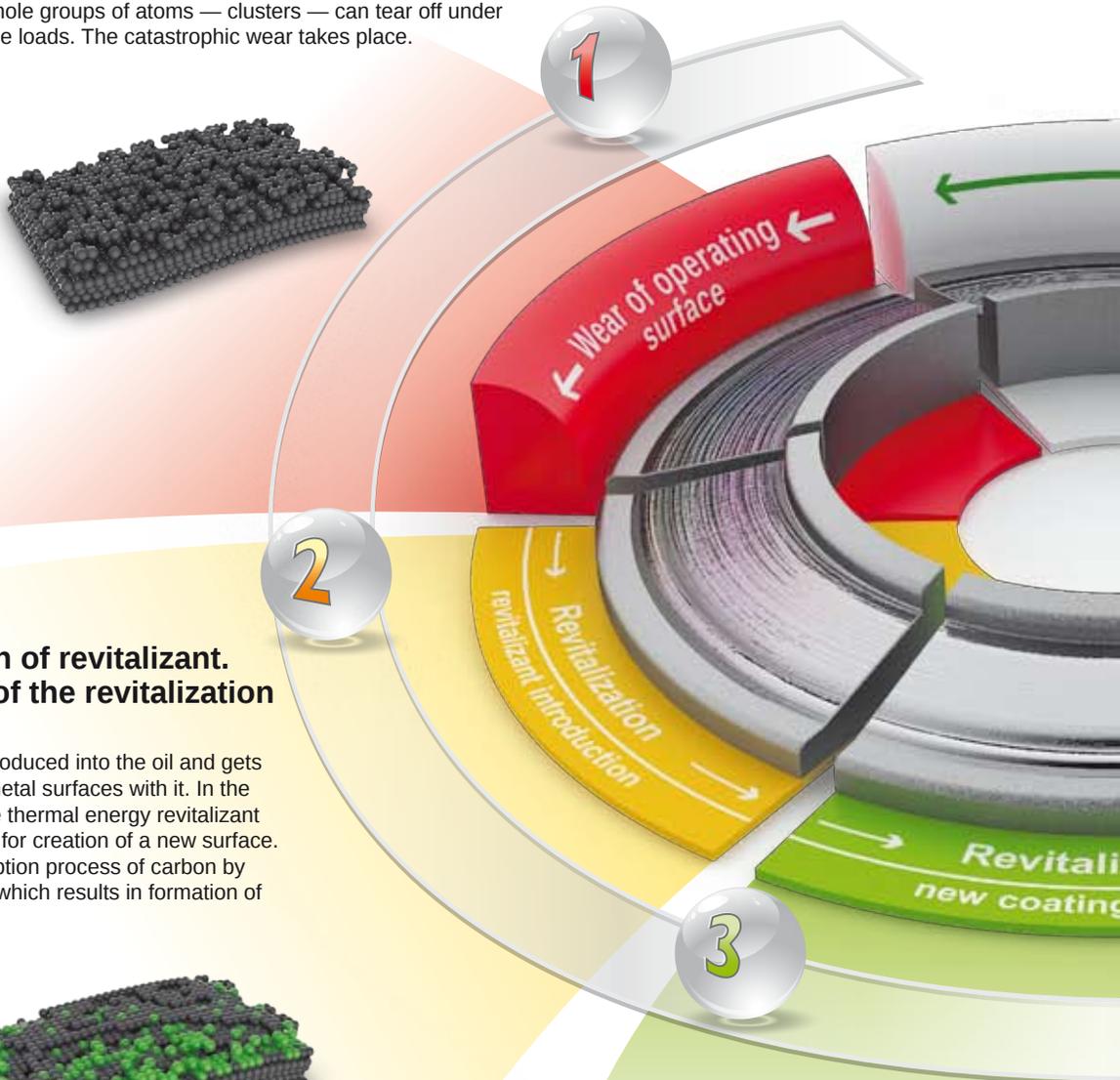
# Effect of 1 Stage

is based on the unique phenomenon of revitalization

## How does wear of operating surface occur?

The destruction of the surface layer occurs under loads in the friction zone. The metal atoms tear off from the surface and get into the lubricant.

The whole groups of atoms — clusters — can tear off under extreme loads. The catastrophic wear takes place.



## Introduction of revitalizant. Beginning of the revitalization process

Revitalizant is introduced into the oil and gets onto the friction metal surfaces with it. In the zone of excessive thermal energy revitalizant acts as a catalyst for creation of a new surface. It activates absorption process of carbon by the surface layer which results in formation of metal carbides.

## New coating creation

The creation process of a new durable protective coating occurs with the help of carbides and metal particles contained in the lubricant, which were rubbed off from the operating surfaces.

## Main characteristics of the protective coating

Microhardness — 650–750 kg/mm<sup>2</sup>.  
Roughness Ra up to 0,06 μm.  
High corrosion resistance.  
Exceptional antiwear characteristics.

Reviatization ensures long, effective and reliable operation of the mechanism.

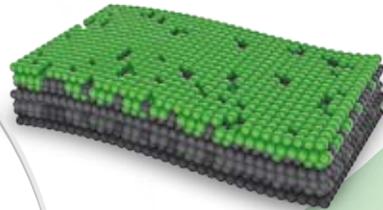
The field of revitalizant application is as broad as often we need machines and mechanisms: industrial equipment, transport, household appliances, sports equipment, arms etc.



## STAGE REVITALIZANT

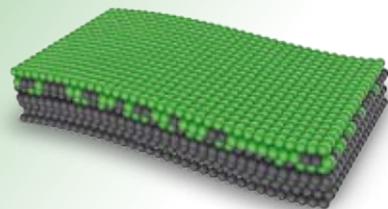
### Regular operation

As a result of revitalization the mechanism is completely protected from any overloads and will serve 2 to 4 times longer. The friction pair gains quasi wear free properties.



### Completion of surface modification

Due to diffusion of the protective layer into the metal, an extra durable gradient coating with positive pressing stress is formed along the whole depth at the final stage.



## Results of revitalization

XADO revitalizants combine a science intensive and at the same time very beautiful in its simplicity idea about making the wear-out processes reverse.

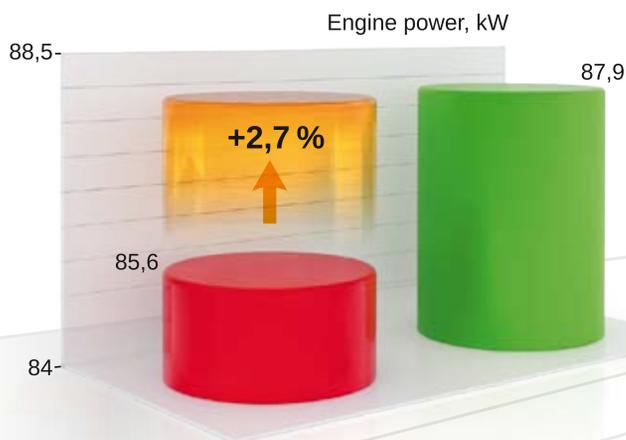
As a result of revitalization a new coating is formed on the surface of friction pairs — the parts increase in volume and restore their geometry.

The obtained coating possesses unique properties — exceptional corrosion resistance and low roughness.

**The part will serve 2 to 4 times longer after the revitalization.**

# Results **1 Stage** and advantages of

## Increase of engine power



### Units repair and restoration.

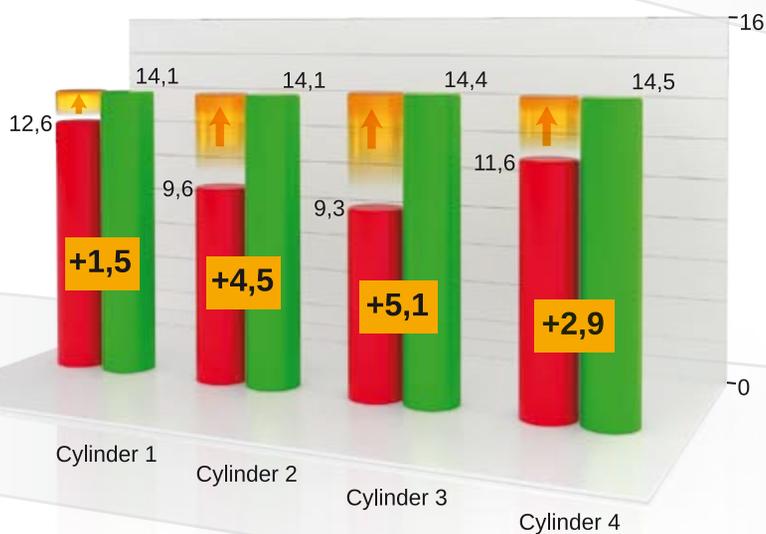
A coating is formed on the friction pairs, the parts gain in weight and volume and restore their initial geometry. The restoration takes place while the mechanism is operating in a regular mode and under working loads, owing to this an optimal adjustment of the friction pairs is achieved. As a result, the power and torque of the engine are increased, the cylinder compression is increased and restored etc.

Improved engine operation, increased accelerating capability, power, flexibility of the vehicle are the revitalization advantages which you can feel behind the wheel of your car.

## Increase of cylinder compression

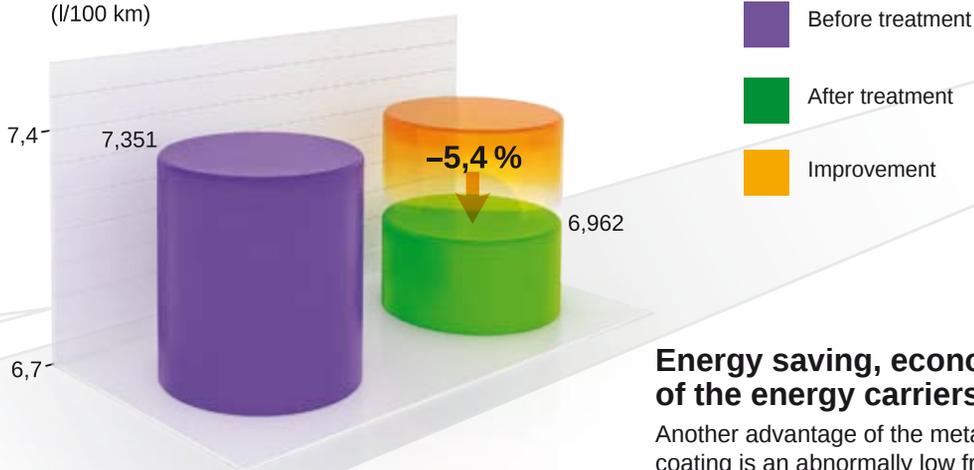
### Resource saving, significant reduction in wear intensity of the units.

The coating obtained as a result of revitalization, possesses unique properties — exceptional durability (microhardness — 650–750 kg/mm<sup>2</sup>) and high corrosion resistance that allows to avoid metal losses, keep the friction surfaces in a perfect state, improve significantly the reliability of units and mechanisms operation as well as increase their resource.



## Reduction of fuel consumption

Average value of fuel consumption (l/100 km)



### Energy saving, economy of the energy carriers.

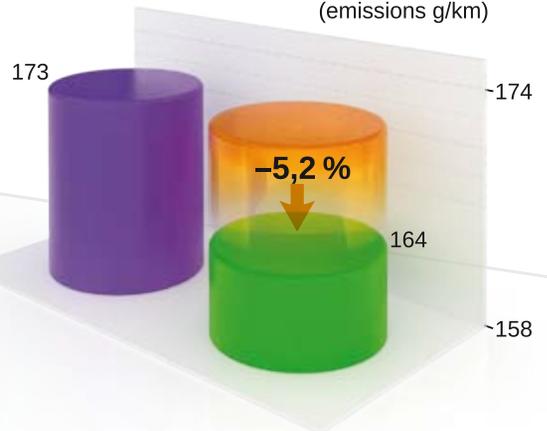
Another advantage of the metal-ceramic coating is an abnormally low friction coefficient (roughness Ra up to 0,06  $\mu\text{m}$ ). Together with optimization of adjustment, it allows to achieve considerable economy (up to 30 %) of the energy carriers.

## Reduction of exhaust emissions toxicity

CO average value (emissions g/km)



CO<sub>2</sub> average value (emissions g/km)



HC average value (emissions g/km)



### Ecological rationality.

Energy and resource savings are the basis of careful attitude to the environment. While operating the mechanisms treated with revitalizants, the emissions of harmful substances (CO, CO<sub>2</sub>, HC) in the atmosphere are considerably reduced.

# New

## Atomic Metal Conditioners

For the first time the Metal Conditioners with atomic revitalizant solve two tasks simultaneously:

- modify friction surfaces (due to the revitalization effect);
- improve lubricating properties of the oil.

Such result has been achieved due to a three-component formula of the compound: complex (two-component) metal conditioner plus atomic revitalizant.

### How does it work?

Revitalizant forms a metal-ceramic coating on the parts surface: compensates wear and extends the life span of the parts. Molecules of a two-phase complex metal conditioner interact synergetically with nano-particles of the revitalizant and the substance of the parts surface. Thus the three-dimensional contact between the rough surfaces of the parts is converted into a two-dimensional one with extra light sliding and low friction coefficient.



#### 2 D sliding Agent

provides extra light sliding between the engine parts.



#### Revitalizant

forms a metal-ceramic coating on the parts surfaces: compensates wear and extends the life span of parts.



#### Metal Conditioner

strengthens lubricating film, excellently interacts with revitalizant.



The three-component formula of the compound allows to achieve simultaneous restoration, wear protection and light sliding of the parts.



### XADO Highway

Provides reliable protection of the engine against current wear of parts.

RF\* 5,5 means that the engine is reliably protected against current wear.\*\*

\* RF (Revitalization Factor) is an efficiency index of restoration and protection of the engine against wear. Max – 100,0.



### XADO Tuning

Provides tuning — adjustment of the engine parts so that minimum friction losses occur and maximum resource is provided.

RF 33,3 means that a partial revitalization of the engine and the adjustment of the engine parts to each other occurred that ensures maximum resource.\*\*

\*\* It is recommended to use XADO 1 Stage Maximum for a complete revitalization cycle.





### XADO 1 Stage New Car

Provides local precise adjustment of parts to each other while running-in and the top level of engine protection of a new car (with a run up to 20 000 km).

### XADO 1 Stage Maximum

Restores and provides the top protection level of the engine in cars with more than 20 000 km run.

RF 100,0 stands for a complete revitalization cycle and guarantees wear protection for **100 000 km run**.\*



\* To keep the highest protection level of the engine it is recommended to use XADO Atomic Oil regularly or metal conditioner XADO HighWay every time during the oil change.

### Application instructions and dosage

Atomic metal conditioners are introduced into the engine oil one time, at a ratio of 1 bottle (225 ml) per 4–6 l engine oil.

The advantage of metal conditioners with revitalizant is the aftereffect as the metal-ceramic coating formed by revitalizant continues to protect the parts after the oil change.

# XADO for your car Gel-revitalizants



The compound is designed for protection of engine parts against wear and restoring repair of gasoline and diesel engines without disassembly.

## FOR ENGINES

- restores parts of the cylinder-piston group, crank- and gas-distributing mechanisms
- significantly reduces fuel consumption (up to 30 % at idle)
- increases oil pressure in the system up to the nominal value
- increases and equalizes cylinder compression
- increases power and acceleration capability of the engine
- decreases noise and vibration level by 10 times
- extends life span by 2 to 3 times
- protects engine from negative consequences of cold starts
- improves engine operation already after 50–100 km
- allows engine operation up to 300 km in case of accidental oil leakage



The compound is designed for restoring repair of the gear boxes, transfer cases & differentials and for wear protection.

## FOR GEAR BOXES, TRANSFER CASES & DIFFERENTIALS

- Restores geometry of parts
- Removes cavities and scratches on the operating surfaces
- Optimizes contact patches in gear engagement areas
- Reduces noise and vibration of units by 10 times
- Improves precision of gear changing
- Improves operation of synchronizers
- Provides considerable fuel saving (especially in four-wheel drive vehicles)
- Extends protection of transmission units in case of accidental oil leakage (up to 1000 km)



The compound is designed for restoring repair and wear protection of fuel equipment of diesel engines.

## FOR FUEL EQUIPMENT OF DIESEL ENGINES

- Restores geometry and protects friction parts of any fuel pumps, injectors and pump-injectors from wear
- Reduces fuel consumption
- Increases engine power
- Reduces noise and vibration level
- Decreases the level of toxic components in exhaust gases
- Protects fuel equipment from low-quality fuel

The compound is designed for wear protection and restoring repair of power steering pumps and other hydraulic equipment.

## FOR POWER STEERING PUMPS

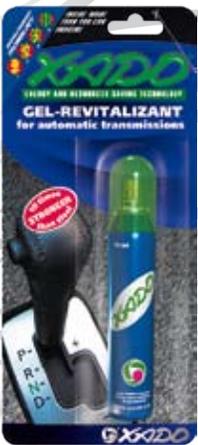
- Decreases force on a steering wheel
- Increases pump performance
- Increases the accuracy of the hydraulic system operation already after 50-100 km after revitalizant application
- Decreases noise and vibration of the power steering pump
- Protects parts from wear in case of low oil level
- Eliminates pump howling



The compound is designed for restoring repair and wear protection of automatic transmissions.

## FOR AUTOMATIC TRANSMISSIONS

- Restores and protects friction metal parts from wear
- Removes surface defects
- Improves reliability of the steering mechanism and extends its life span
- Reduces noise and vibration level
- Damps extreme loads



## FOR SMALL ENGINES

- Restores cylinder compression
- Protects friction parts from wear
- Reduces fuel consumption
- Increases power of the engine up to 100 %
- Increases life span of the engine by 2 to 4 times
- Reduces exhaust emissions



The compound is designed for restoring repair and wear protection of engine parts of motor equipment with volume capacity up to 1000 cm<sup>3</sup>. Provides threefold effect — repair, protection and economy.

# 1 Stage

## Application



**Add the content into the oil filler of the engine warmed up to operating temperature. Start the engine and let it idle for 3 to 5 minutes.**

**The treatment is considered to be completed after 1000 km run. It's not recommended to change oil until the end of treatment.**

The application of the compound ensures reliable protection of the engine for 100 000 km. 1 STAGE Revitalizant is effective for engines of passenger cars and small trucks with oil system capacity up to 10 l. The compound is compatible with all types of engine oils, it doesn't change their viscosity, physical-chemical and operating characteristics.

**The engines with considerable wear may need repeated application.**

### THE RECOMMENDATIONS OF SPECIALISTS

The treatment is considered to be completed after 1000 km run. In future it's recommended to apply **XADO Atomic Oil** to keep the highest level of engine protection.



Reduction of emissions  
(CO<sub>2</sub>, CO, HC)  
Reduction of fuel consumption  
Increase of engine power  
Increase of compression pres



**XADO gel-revitalizant for gasoline engines is officially certified by TÜV for conformity with the claimed consumer properties.**

### What is TÜV and why does the consumer need it?

The TÜV regional associations were created in Germany in the middle of the XIX century for engineering control of steam engine and they became powerful companies dealing with technical audit and certification in 150 years.

The most important fields of TÜV activity are commercial expertise and transport inspection. But today the TÜV experts examine everything from the assortment and prices in shops to the airport terminals.

And for the consumers the abbreviation TÜV is an absolute mark of quality, namely the German quality. The product with this mark deserves full and unconditional trust!





***1 Stage Revitalizant — restoration,  
effective protection and maximum  
engine capability***

# XADO<sup>®</sup>

## CHEMICAL CONCERN

**XADO<sup>®</sup>**  
CHEMICAL CONCERN

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