

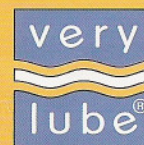


# XADO<sup>®</sup>

## CATALOGUE

### 2009 · 2010

- OILS • GREASES • REVITALIZANTS
- SPECIAL FLUIDS • AUTOCHEMISTRY

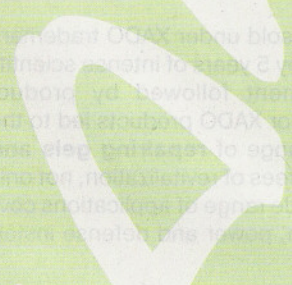




**We have pleasure in introducing our new XADO Catalogue.**

The catalogue outlines important and useful information covering XADO and VERYLUBE products, their primary properties, applications and advantages. The XADO brand is known throughout the world for its revitalizing properties. You can learn more about the physics of the XADO revitalization process in the corresponding chapter. The catalogue includes chapters devoted to oils, lubricants, gels, revitalizants, autochemistry, and special fluids. The pictures, diagrams and cross references will help you to choose a range of products for a specific requirement.

We guarantee you will enjoy more reliable, efficient and enjoyable operation of your vehicle or equipment.



XADO Chemical Concern manufactures unique products that are certified by the American Petroleum Institute (API) and meet the highest API SL and API SM specifications. The high quality of XADO motor and transmission oils is proved and recognized all over the world.

# ABOUT US



**XADO Chemical Concern** was formed in 1991. It specializes in the research, development and application of energy efficient and resource saving technologies, as well as the production of oils, lubricants and autochemistry.

Today, XADO is a modern and dynamic chemical company completed with the most up to date high-tech equipment that enables us not only to increase the output of products, but also to manufacture customized products.

The Company follows the strict ISO 9001-2000 certification and each batch of goods is quality assured.

XADO Chemical Concern has its own certified research center "**XADO Laboratories**" with well-equipped and certified physical and chemical, chemotological, tribological, and ballistic laboratories; it also includes a **Methodical** and **Technical Resource Center**.

XADO headquarters are located in Kharkov, Ukraine, with offices in **Ukraine, Russia, Belarus, Georgia, Lithuania, the Netherlands** and **the USA**. We also have a well-developed network of dealers throughout the world. XADO products can be purchased in over 30,000 specialized shops. We are also embarking on a program of regional service centers and maintenance shops under the title of "XADO-Service" where guaranteed diagnostics and treatment with XADO-Technology are at your service.

XADO Chemical Concern manufactures unique products that are certified by the **American Petroleum Institute (API)** and meet the highest API SL and API SM specifications. The high quality of XADO motor and transmission oils is proved and recognized all over the world.

XADO Chemical Concern is a modern and dynamic company, which constantly strives to expand and improve the range of products available.

At the heart of XADO-technology is the **discovery of the revitalization phenomenon**. All the products developed using XADO-technology possess a unique repairing, regenerating and protective characteristics that help to save energy and resources, and to protect the environment and improve the quality of life.

The effectiveness of XADO revitalizants is recognized and supported by certified tests carried out in **35 countries**. The discovery is patented in Australia, Germany, China, Russia, USA, Ukraine, SAR, and other countries.

Vehicles products were first sold under XADO trademark in 1999. This was preceded by 5 years of intense scientific research and development followed by product approval. The high demand for XADO products led to the introduction in 2000, of a range of **repairing gels and lubricants**, with various degrees of revitalization, not only for vehicles, but also for a wide range of applications covering industry, transportation, power and defense installations.

**Fast, specific and genuine results, which can be easily tested and measured, as well as the simplicity of application — is the reason to choose XADO-technology.**





One of the significant achievements of XADO scientists was the creation of the atomic revitalizant - the revitalization became a natural part of vehicle maintenance. The addition of atomic revitalizant created a new oil formula that would protect mechanical parts, and would ensure that no metal atoms would be removed from surfaces where friction occurs!

The development resulted in the launch, in 2004 of the **XADO Atomic oil** brand, in cooperation with the world's largest oil and special fluids producers.

For our oils, we have selected the best offered by the world market.

First of all it is the base. These are base oils from petroleum components from the North Sea, and oils of hydrocracking synthesis; polyalphaolefines and esters from the leading European producers. The most important component, which provides the high level of operational performance, is a package of additives. When formulating XADO oils, we use products developed by the leading additive producers — Lubrizol, Infineum, and Oronite. And our atomic revitalizant makes XADO Atomic Oils unique.

The high quality of XADO Atomic Oils is acknowledged by such authoritative organizations and automobile manufacturers as **American Petroleum Institute (API), VOLVO, GM (Opel)** and **Daimler Chrysler (MB)**.

The oils, introduced at the beginning of 2006 include 29 items: 19 motor oils (including 2 two-cycle motor oils), 5 transmission oils, and 5 special oils. All the oils are packed in reliable metal packaging with several levels of anti-fraud protection. XADO Chemical Concern also has the ability to custom-produce any type of industrial oils. Our highly qualified specialists can develop and monitor revitalization programs for the most complex industrial equipment and will guarantee real energy and resource

saving results. In 2005, we introduced a range of special fluids and products which also contained revitalizant, e.g. antifreezes, brake fluids, automobile air conditioning compounds, and other items.

**VERYLUBE Company is a subdivision of XADO Chemical Concern;** VERYLUBE manufactures car care and maintenance products, which also include aerosol products and sprays. VERYLUBE is a popular trademark; it is a high quality motor product at a reasonable price.

Today, XADO Chemical Concern offers over 100 items, which can be purchased all over the world. The award of numerous prizes, diplomas and rewards, at international competitions, exhibitions and shows, is a testament to the uniqueness and high quality of our products. **However, XADO Chemical Concern's highest reward is the recognition of our customers who choose our products.**



# REVITALIZATION



## Revitalization — "bringing back to life"

The word revitalization (Latin. *vita* — life) can be literally interpreted as "bringing back to life". The discovery of the revitalization phenomenon is based on unique physical and chemical processes, as a result of friction, which occurs under specific conditions. In brief, the essence of the phenomenon is as follows: when a mechanism is operating, stress is formed on the friction surfaces. Under high load excessive thermal energy is released destroying and wearing parts. However, if a unique building material — **revitalizant**, is introduced to the friction area, it converts the excessive energy to form a new coating. Therefore from friction's destructive energy positive conditions are formed. The energy of destructions turns into the energy of creation!

## How wear and tear usually occurs

Let's consider the friction surface under normal operating conditions. We can see clear traces of wear and tear. If you look closely: the marked area is the area of abnormal surface activity. Here, the metal atoms have an uncompensated double bond: such atoms can easily be "grabbed", "loosen" and "torn" away from the matrix by increasing stress.

*Imagine a tree on the edge of a brink. The soil erodes under influence of the wind and water, and the roots of tree become exposed. The binding between the tree and the soil becomes very weak and a strong wind can easily uproot the tree.*

*The same process occurs with the metal surface when it wears. The atoms easily break away and the destruction of the surface begins. Moreover, the whole groups of atoms can break away under extreme loads. This results in a catastrophic wear.*

## WORN SURFACE



## REVITALIZED SURFACE

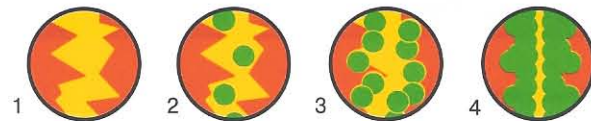


### Metal can be rebuilt!

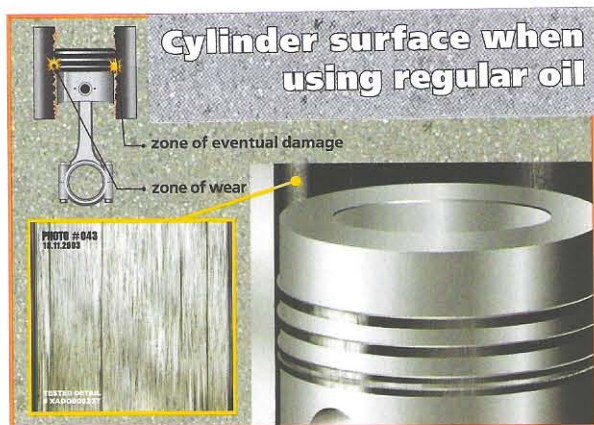
With the discovery of **revitalization**, the scientists found out that it is possible to reverse the process of wear, protect and restore the worn surface! It turned out that it is possible to create the conditions, where a part can gain a new protective surface with high anti-wear properties. To create such conditions, a specially synthesized substance — **revitalizant** should be placed in the area of friction. It contains the construction material for the new surface and the unique energetic activator that will enable the excessive friction energy to create a new metaloceramics coating.

### The rebuilding process

Revitalization starts in the areas of excess stress (area of the maximum wear), this is the area, which has sufficient amount of excessive energy to start a new process, and the metal atoms have largest amount of free (uncompensated) bonds (1).

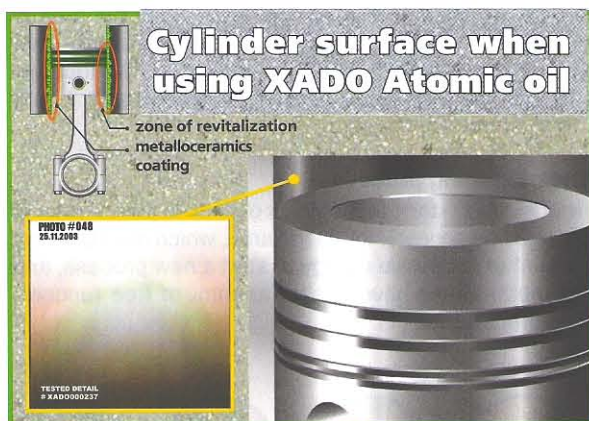


These bonds, like magnets, seize and retain the construction material — **revitalizant**. As the stress starts, the energetic activator collects the excessive thermal energy and directs it to construct the protective layer. Thus, a new coating is formed on top of old surface (2,3). Several minutes after the beginning of the revitalization, a metaloceramics patch appears in place of a scratch. The area of abnormal activity disappears. Energetic processes stabilize, and the coating growth stops (4). Simultaneously, a mutual diffusion of two substances (metal and metaloceramics) takes place, which completes formation of the new coating, cements it, and removes the defect once and for all. With time the new coating becomes more and more reliable.



### New possibilities with atomic revitalizant

The phenomenon of revitalization has become a technological breakthrough in the running of modern equipment. The invention of the atomic revitalizant enables us to take a new look at the potential of motor oil and at the same time to make the revitalization process permanently available. The figure shows the friction surface when using XADO Atomic oil, which contains atomic revitalizant. The metaloceramics coating can be clearly seen.



### Revitalization results

The potential of revitalization has changed the modern conception of vehicle and machinery operation and repair. XADO products have created a high-tech and yet very simple method to reverse the wear. As a result of revitalization, a new coating is formed on the surface of a friction surfaces — a part builds up and restores its geometry. The new coating possesses unique properties: an amazing durability (micro-hardness 650–750 kgf/mm<sup>2</sup>), high corrosion resistance, and a very smooth surface (Ra up to 0.06 micron). That is why a part is guaranteed to last by up to 2–4 times longer after the revitalization. The revitalized mechanism will also be indebted to you and will continue to operate at its best! The benefit of the revitalization is that you will end up with a mechanical assembly, which will perform better than new, and which will last longer than it would have done!



## AREAS OF REVITALIZANTS APPLICATION



**Industrial Equipment:** various types of compressors and different destination, industrial reducers and transmissions, hydraulic systems (oil pumps of any type), rolling and friction bearings, open pinion gears, machine-tools and equipment, forge hammers, presses and punches, smoke exhausters and blow fans, open gearing and chain drives, forming and cylinder roll assemblies, copy machines, electric engines and power generators, internal combustion engines, fuel equipment and other industrial equipment.



**Transportation:** diesel and carburetor internal combustion engines of all types and brands, gas turbine engines, gears, transmission assemblies of all types, rolling and friction bearings, hydraulic and fuel systems.



**Household Appliances:** engines, chain saws and bearings, lawn-mowers, electric drills, paper tape punches, polishing machines, other construction tools, horticultural sundries, fans, locks, hinges, etc.



**Sports and Weapons:** any sports equipment assemblies and mechanisms, rifled and smoothbore weapons of all types of caliber (combat, sports, hunting, and antique), etc.

## BENEFITS OF REVITALIZATION

**The Repairing and Restoration of Assemblies.** New metalloceramics coating is formed on the friction pairs; these parts increase in weight and volume, and restore their initial geometry (the biggest increase is up to 1.5 mm!). The restoration occurs during normal mechanical operation so that the ideal fit of the friction pairs is achieved. As a result, the capacity of power-units increase, the accuracy of the mechanism work improves, and noise and vibration are reduced.

**Resources saving, significant reduction in the amount of assembly wear and tear.** After revitalization, the new coating possesses unique properties: an amazing durability (micro-hardness 650–750 kgf/mm<sup>2</sup>), high corrosion resistance, that avoids further metal loss, maintains an ideal friction surface, which significantly increase the reliability of the assembly and which improve performance.

**Power and energy saving.** Another advantage of the metalloceramics coating is an abnormally low friction factor (roughness Ra up to 0.06 micron). After treating the friction surfaces, it results in a significant increase (up to 30%) in energy saving.

**Ecological rationality.** The saving of energy and resources is environmentally friendly. When a revitalized mechanism is operating, there is a significant reduction in the release of harmful exhaust substances (CO, CH, and NO<sub>x</sub>) to the atmosphere.



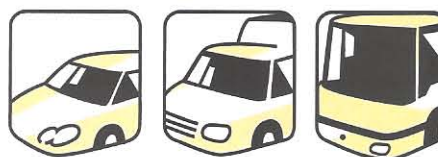


XADO Atomic Mineral Motor Oil



# 15W-40 SL/CI-4

High-quality high-performance mineral motor oil.  
 Contains atomic revitalizant.  
 Certified by the American Petroleum Institute.  
 The base oil is made of high-quality oil  
 from the North Sea shelf.



**0,5L**  
Art. XA 22013

**1L**  
Art. XA 22113

**4L**  
Art. XA 22213

**5L**  
Art. XA 22313

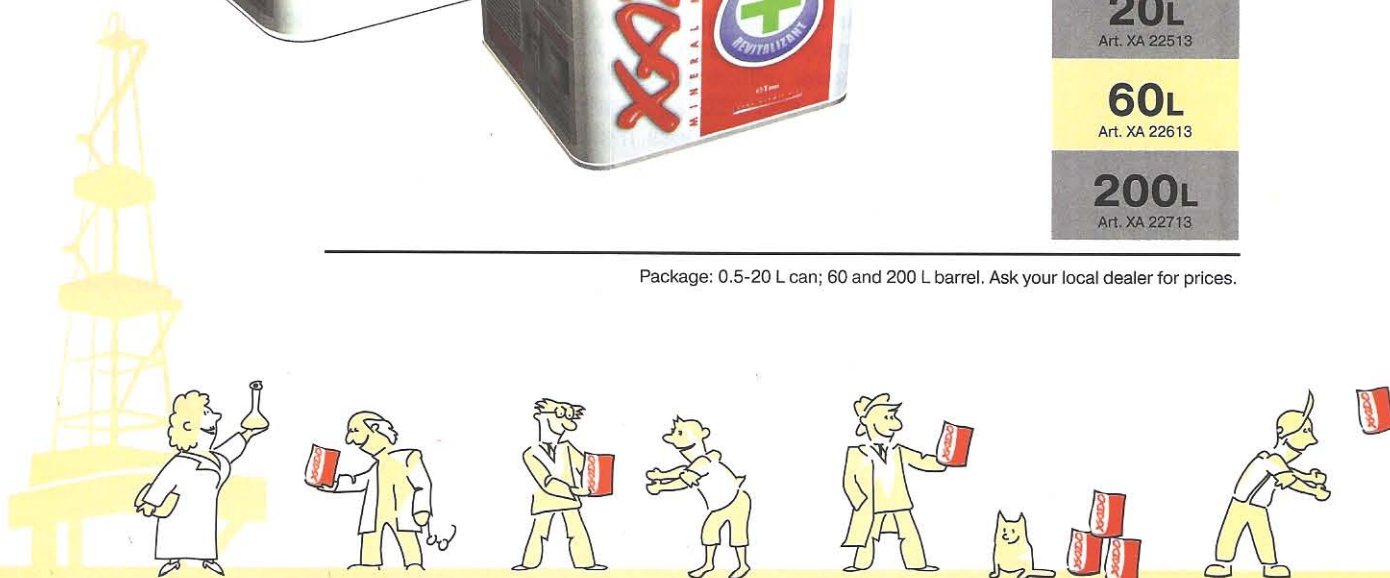
**10L**  
Art. XA 22413

**20L**  
Art. XA 22513

**60L**  
Art. XA 22613

**200L**  
Art. XA 22713

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.



OILS

GREASES

REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY

# ADVANTAGES


XADO Atomic oil 15W-40 SL/CI-4 is a multigrade motor oil, **today's best mineral oil**. The high performance level ensures the optimal balance between the best high-purity complex mineral base and a modern package of additives. XADO Atomic oil 15W-40 SL/CI-4 not only meets all the performance requirements for mineral oils, but exceeds those of many synthetic oils!

**Compression, power, and economy** are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.

## ADDITIONAL ADVANTAGES

- Universal in use; protects various engine parts in cars and trucks.
- Efficient for all-season use for diesel engines, including those with the exhaust gas recirculation system (EGR).
- The viscosity 40 shows that the oil keeps the pressure in the oil system even under high temperatures.
- Recommended for loaded vehicles. Due to the revitalizant the reliability of the engine operation increases, especially under extreme loadings.
- Keeps the optimal fluidity even after 30,000 km run. Stable to oxidation and does not form sediments; it keeps all the required properties during the whole period of work! It successfully resists the ash in oil and protects turbo assemblies.
- Due to the unique resource saving properties of the revitalizant, XADO Atomic oil 15W-40 SL/CI-4 can significantly prolong the engine life span of both a new car and a car with run.

## CERTIFICATION

The oil was officially licensed by the **API, American Petroleum Institute**. It corresponds to the highest world standards both for gasoline engines (API SL) and diesel ones (API CI-4). The oil has been approved by the **VOLVO Technology Corporation** and recommended to use in warranty and after-sales servicing of  Volvo vehicles where motor oils with VDS-2 requirements are recommended to be used.



## BASE



The base of XADO Atomic oil 15W-40 SL/CI-4 is formulated of high-quality hydrocarbons of oil from the North Sea shelf.

## TEMPERATURE RANGE FOR APPLICATION



## SPECIFICATIONS

**SAE 15W-40**  
**API SL/CI-4/CH-4/CG-4/CF-4/CF**  
**ACEA A3/B3/B4/E3/E5**  
**Global DHD-1**

## OEM LEVEL

**VW 501.01/505.00**  
**MB 228.3, 229.1**  
**Volvo VDS-2**  
**Renault (RVI) RLD**  
**MAN 3275**  
**Mack EO/M PLUS**  
**Cummins 20,072/1/6/7/8**

## TECHNICAL INFORMATION

Density at 20 °C, kg/l	0.8823
Viscosity at 100 °C, mm <sup>2</sup> /s	13.7
Viscosity at 40 °C, mm <sup>2</sup> /s	102.3
Viscosity at -20 °C, mPa s	6.070
Viscosity index	138
Flash point, °C	214
Pour point, °C	<-33
Easy start temperature, °C	-20
Sulfated ash level, mass. %	1.2
Total base number, mgKOH/g	9.2

Note. Typical figures are presented.

## SPECIFICATIONS API CI-4

The highest American class of oils for powerful diesel trucks API CI-4 was introduced in September 2002. The development of API CI-4 oils was targeted at diesel engines equipped with the exhaust gas recirculation system (EGR). Quality-wise, API CI-4 oils significantly exceed their predecessors.

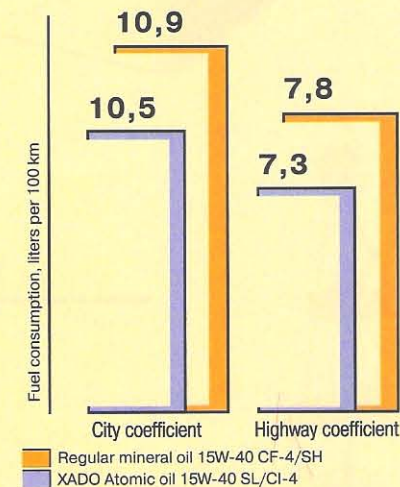
## Advantages of using API CI-4 oils:

- Improved wear protection of engine parts, and in particular, connecting rod end;
- Lower oil consumption;
- Exclusive anti-wear protection at low temperature start, better cold pumpability of oil;
- Better protection of the oil filter from clogging up with ash;
- Longer gaskets life;
- Better stability of viscosity of oil contaminated with ash;
- Improved corrosion protection for crankshaft bearings;
- Increased resistance to oxidation under high oil temperatures.

## COMPARISON TESTS

XADO Atomic oil 15W-40 SL/CI-4 (fuel saving)

minivan VW Transporter, 2.5 TDi, year of production — 2002, mileage over 110,000 km



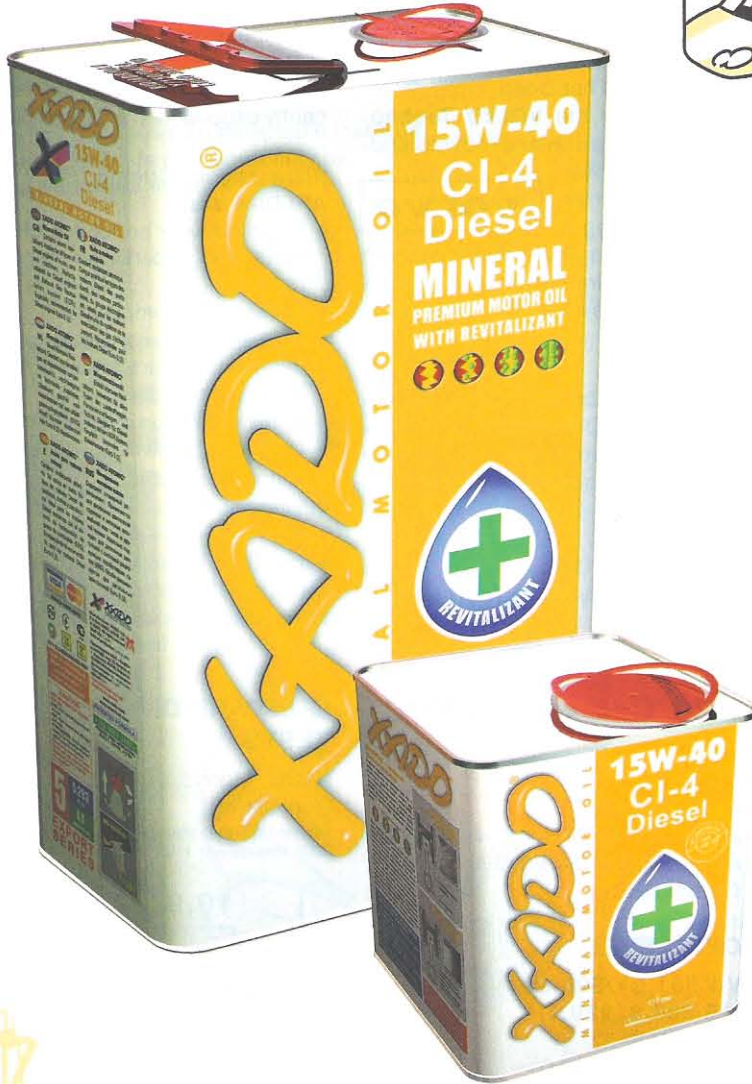
Using XADO Atomic oil provides significant fuel savings.



# 15W-40 CI-4 DIESEL



Special motor oil of the highest class for diesel engines.  
 Contains atomic revitalizant.  
 Certified by the American Petroleum Institute.  
 The base oil is made of high-quality oil  
 from the North Sea shelf.



- 0,5L**  
Art. XA 22014
- 1L**  
Art. XA 22114
- 4L**  
Art. XA 22214
- 5L**  
Art. XA 22314
- 10L**  
Art. XA 22414
- 20L**  
Art. XA 22514
- 60L**  
Art. XA 22614
- 200L**  
Art. XA 22714

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.



OILS

GREASES

REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY

AUTOCH

# ADVANTAGES

XADO Atomic oil 15W-40 CI-4 Diesel is a multigrade motor oil of the highest class for diesel engines of cars and vehicles. The complex refined mineral base and the best package of specially designed additives ensure the excellent operational properties of the oil. Its characteristics exceed the requirements of the highest American (API CI-4), European (ACEA B3/B4/E3/E5), and international (Global DHD-1) standards, as well as specifications of the leading auto manufacturers (Volvo, MB, MAN, and Renault).

Power, reliability, and economy are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.

## ADDITIONAL ADVANTAGES

- Can be used for all types of diesel engines of trucks and cars, and specialized ground-based equipment; provides high degree of their reliability.
- Ideal for engines with the exhaust gas recirculation system (EGR), and is particularly recommended for engines Euro-3 (2).
- Provides exclusive protection of a turbo.
- Possesses a unique reserve of performances and provides drain intervals up to 100,000 km for Euro-3 engines.
- Effectively protects engines working on the high-sulfur fuel (sulfur content up to 0.5 %).
- Keeps the engine clean and neutralizes ash contamination.
- Lowers dangerous exhausts to the atmosphere.

## CERTIFICATION

The oil was officially licensed by the **API, American Petroleum Institute**. It corresponds to the premium world standards for diesel engine oils (API CI-4). The oil was approved by the **VOLVO Technology Corporation** and is recommended for use during warranty and post-warranty service of Volvo vehicles where motor oils with VDS-3 requirements are recommended to be used.



**VOLVO**

## BASE



The base of XADO Atomic oil 15W-40 CI-4 Diesel is formulated on the complex refined mineral base oils from the North Sea shelf.

## TEMPERATURE RANGE FOR APPLICATION



## SPECIFICATIONS

**SAE 15W-40**  
**API CI-4/CH-4/CG-4/CF-4/CF**  
**ACEA B3/B4/E3/E5**  
**Global DHD-1**

## OEM LEVEL

**VW 505.00**  
**MB 228.3**  
**Volvo VDS-3, VDS-2**  
**MAN 3275**  
**Renault (RVI) RLD**  
**Mack EO/M PLUS**  
**Cummins 20,072/1/6/7**

## TECHNICAL INFORMATION

Density at 20 °C, kg/l	.0.8832
Viscosity at 100 °C, mm <sup>2</sup> /s	.14.2
Viscosity at 40 °C, mm <sup>2</sup> /s	.105.5
Viscosity at -20 °C, mPa s	.<7,000
Viscosity index	.137
Flash point, °C	.214
Pour point, °C	.<-30
Easy start temperature, °C	.-20
Sulfated ash level, mass. %	.1.37
Total base number, mgKOH/g	.10.3

Note. Typical figures are presented.

## SPECIFICATIONS Global DHD-1

The Global DHD-1 specification covering oils for diesel trucks was introduced in February 2001.

It is one of the largest joint projects of American, European, and Japanese engineers in the field of engines and lubricants. It is targeted at the formation of unified requirements to universal motor oil for large diesel trucks with the goal to prolong the service life of engine, increase the interval between maintenances and prevent the mistakes when applying different types of oils.

Global DHD-1 unites key operational requirements API CH-4, ACEA E5 and JASO DH-1, meets global standards on the toxicity and exhaust gases of powerful diesel engines, first of all, on the content of nitric oxide (NOx).

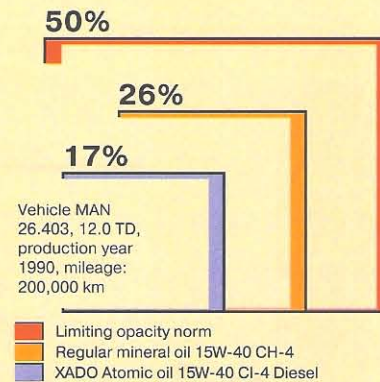
Global DHD-1 includes 9 engine tests and 9 bench tests what is more than required by any of the currently existing specifications!

For protection against soot collection in oil and neutralization of aggressive combustion product (if the engine works on high-sulfur fuel), the composition of these oils includes a package of additives with strong detergent-dispersing properties.

As a result the oil with the Global DHD-1 specifications can be recommended without any limitations to use in American, European, and Japanese engines of trucks. It protects them effectively, increases the resource and makes them safer for the environment.

## COMPARISON TESTS

XADO Atomic oil 15W-40 CI-4 Diesel. Opacity (soot content) in exhausts. Test regime: free acceleration with a short-term forcing of the accelerator pedal.



When a diesel engine works on XADO Atomic oil, the amount of soot in exhausts decreases by over 1.5 times.



XADO Atomic Mineral Motor Oil

**10W-40 SG/CF-4 SILVER**

Multigrade high-quality mineral motor oil.  
Contains atomic revitalizant.  
Based on the refined mineral base oil  
and functional additive package.

**10L**

Art. XA 22423

**20L**

Art. XA 22523

**60L**

Art. XA 22623

**200L**

Art. XA 22723

Package: 10 and 20 L can; 60 and 200 L barrel. Ask your local dealer for prices.



# ADVANTAGES

**XADO Atomic oil 10W-40 SG/CF-4 Silver is the best multigrade motor oil for mixed fleets requiring universal and reliable oils.**

**Economy, reliability and excellent performance of the engine are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.**

## ADDITIONAL ADVANTAGES

- Provides effective lubrication and protection of engines of passenger cars and trucks under normal and loaded operating conditions.
- Universal application for gasoline and diesel engines, including multivalve ones, with turbo and catalyst converter.
- Ensures the widest temperature range of application for mineral motor oils and easy cold start at  $-25^{\circ}\text{C}$ , does not freeze at temperatures up to  $-36^{\circ}\text{C}$ .
- Protects effectively all engine parts against wear, rust and corrosion.
- Possesses perfect detergent-dispersant properties, keeps engine clean.
- Effective when engine operates on high sulfur fuel ( $S < 0,5\%$ ).
- Stable to oxidation and aging, keeps viscosity properties after 15,000 km run.

## STANDARDS

XADO Atomic oil 10W-40 SG/CF-4 Silver exceeds the requirements of American Petroleum Institute for the oils for gasoline (API SG) and diesel (API CF-4) engines.

## BASE



XADO Atomic oil 10W-40 SG/CF-4 Silver is formulated on basis of complex refined mineral base oils from the oil of the North Sea shelf.

## TEMPERATURE RANGE FOR APPLICATION



## SPECIFICATIONS

**SAE 10W-40**  
**API SG/CF-4**  
**MIL-L-46152 EC**  
**MIL-L-2104 D**  
**CCMC G4/D4/PD-2**

## OEM LEVEL

**GM 6085-M;**  
**FORD M2C-153C**

## INFORMATION

### about motor oils for mixed fleets

Most of the automotive enterprises have mixed fleets consisting of trucks with diesel engines, minibuses, small trucks and passenger cars with gasoline engines. These automotive enterprises require reliable and universal oils applicable for all vehicles. They are called mixed fleet oils and chemical concern XADO produced such oil — XADO Atomic oil 10W-40 SG/CF-4 Silver.

This is a multigrade mineral motor oil with SAE 10W-40 viscosity and wide temperature range of application ( $-25... +40^{\circ}\text{C}$ ).

XADO Atomic oil 10W-40 SG/CF-4 Silver is a high quality motor oil meeting the requirements of API SG/CF-4, CCMC G4/D4/PD-2 etc. and can be universally applied to different vehicles. The oil can be used for diesel engines with turbo and forced gasoline engines with catalyst. XADO 10W-40 SG/CF-4 Silver meets specifications of the military department of the USA (MIL), thus it is a reliable oil.

The high quality of XADO Atomic oil 10W-40 SG/CF-4 Silver has been showed in excellent performance level on domestic vehicles.

## TECHNICAL INFORMATION

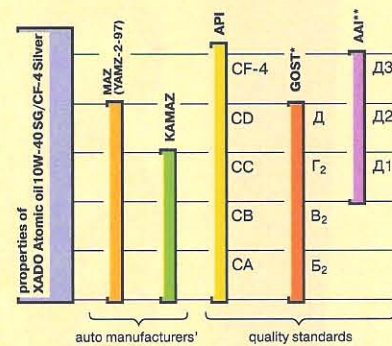
Density at $20^{\circ}\text{C}$ , kg/l	0.873
Viscosity at $100^{\circ}\text{C}$ , $\text{mm}^2/\text{s}$	14.1
Viscosity at $40^{\circ}\text{C}$ , $\text{mm}^2/\text{s}$	95.3
Viscosity at $-25^{\circ}\text{C}$ , mPa s	<7,000
Viscosity at $-20^{\circ}\text{C}$ , mPa s	<3,300
Viscosity index	153
Flash point, $^{\circ}\text{C}$	212
Pour point, $^{\circ}\text{C}$	<-36
Easy start temperature, $^{\circ}\text{C}$	-25
Base number, mgKOH/g	7.4

Note. Typical figures are presented.

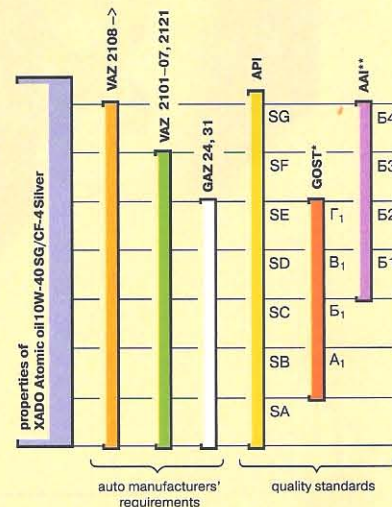
## STANDARD COMPLIANCE

XADO Atomic oil 10W-40 SG/CF-4 Silver

### Diesel engines



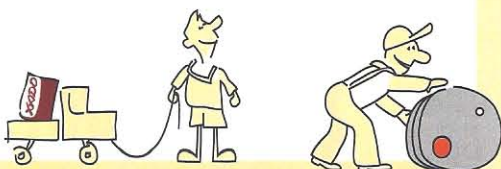
### Gasoline engines



\* GOST 17 479.1 — Standard "Motor oils. Classification and indication"

\*\* STO AAI 003-98 — Standard of Car Engineers Association of RF "Motor oils for automotive engines. Classification, indication and technical requirements".

**XADO Atomic oil 10W-40 SG/CF-4 Silver is a high-quality motor oil which exceeds the high GOST and AAI requirements for motor oils.**



OILS

GREASES

REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY

XADO Atomic Mineral Motor Oil

**10W-40 SL/CI-4 CITY LINE**

The best mineral motor oil with semi-synthetic viscosity.

Contains atomic revitalizant.

Certified by the American Petroleum Institute.

The base oil is formulated on the complex basis from the high-quality oil from the North Sea shelf.

Contains oils obtained in the result of hydrocracking synthesis.

**0,5L**

Art. XA 22012

**1L**

Art. XA 22112

**4L**

Art. XA 22212

**10L**

Art. XA 22412

**20L**

Art. XA 22512

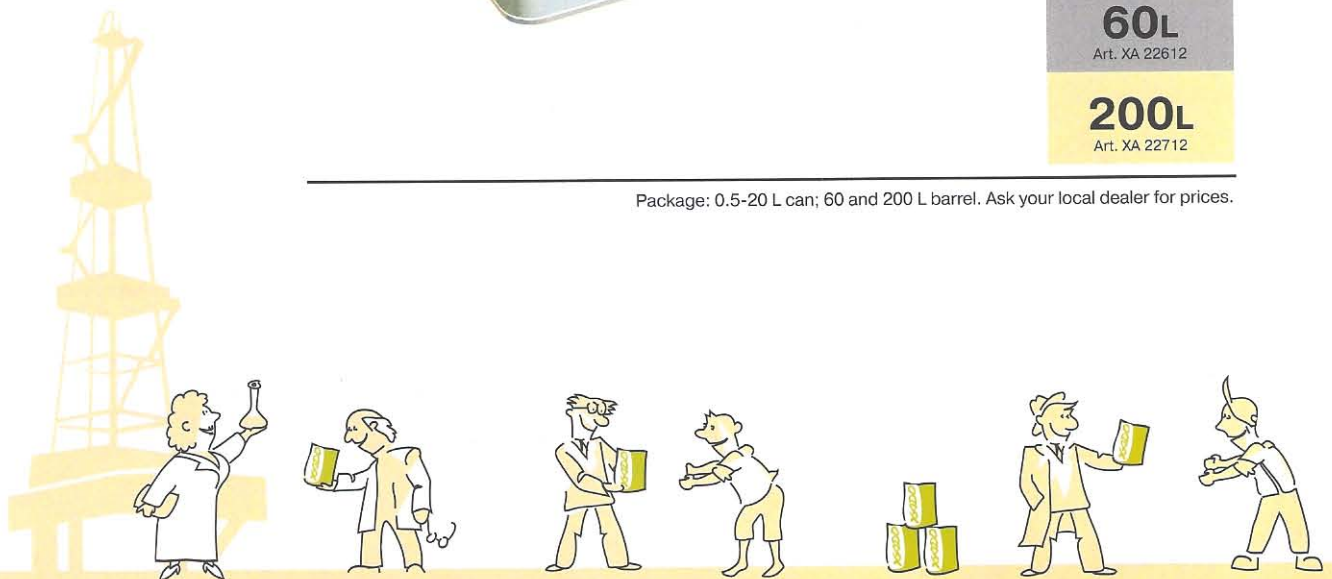
**60L**

Art. XA 22612

**200L**

Art. XA 22712

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.



# ADVANTAGES

XADO Atomic oil 10W-40 SL/CI-4 City Line is a multigrade mineral oil with the performances of the semi-synthetic oil. It was created on the complex basis including refined mineral oils and oils of the hydrocracking synthesis (HC). It was alloyed with the best package of additives. Based on its characteristics, it exceeds the requirements of the premium American (API SL/CI-4), European (ACEA A3/B3/E3/E5), and international (Global DHD-1) standards, as well as the specifications of leading auto manufacturers (MB, VW, Volvo, MAN, and Renault).

**Economy, reliability, and power** are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.

## ADDITIONAL ADVANTAGES

- Universal for gasoline, gas, and diesel engines of all types, including multi-valve ones, equipped with turbo and catalytic converter.
- Provides reliable protection of engines and is particularly recommended to mixed fleets (cars and trucks).
- Possesses an extended temperature range of application comparing with the traditional mineral oil SAE 15W-40. It guarantees smooth movement at cold start with the temperature below -25 °C.
- Exceeds requirements of all the European specifications by over 25 % (ACEA A3/B3/E5) based on the level of potential evaporation losses which guarantees a particularly small waste consumption of oil.
- Ideal for engines with the exhaust gas recirculation system (ERG) and is recommended for Euro-3 (2) engines.
- Keeps stable protective properties (does not rarefy or thicken), is used in engines with prolonged drain intervals (45,000 km, VDS-2).

## CERTIFICATION

The oil was officially licensed by the **API, American Petroleum Institute**. It corresponds to the highest world standards both for gasoline (API SL) and diesel engines (API CI-4).



## BASE

The base for XADO Atomic oil 10W-40 SL/CI-4 City Line is formulated on the high-quality hydrocarbons of the oil from the North Sea shelf.

The base complex oil includes refined mineral oils and oils of hydrocracking synthesis (HC).



## TEMPERATURE RANGE FOR APPLICATION



## SPECIFICATIONS

**SAE 10W-40**  
**API SL/CI-4/CH-4/CG-4/CF-4/CF**  
**ACEA A3/B3/E3/E5**  
**Global DHD-1**

## OEM LEVEL

**VW 501.01/505.00**  
**MB 229.1, 228.3**  
**Volvo VDS-2**  
**MAN 3275**  
**Renault (RVI) RLD**  
**Mack EO-M Plus**  
**Cummins 20,072/1/6/7/8**

## TECHNICAL INFORMATION

Density at 20 °C, kg/l .....0.873  
 Viscosity at 100 °C, mm<sup>2</sup>/s .....14.1  
 Viscosity at 40 °C, mm<sup>2</sup>/s .....93.8  
 Viscosity at -20 °C, mPa s .....<7,000  
 Viscosity index .....154  
 Flash point, °C .....216  
 Pour point, °C .....<-35  
 Easy start temperature, °C .....-25  
 Sulfated ash level, mass. % .....1.37  
 Total base number, mgKOH/g .....10.3

Note. Typical figures are presented.

## SPECIFICATIONS

### ACEA A3, B3, E5

Based on the classification of the European Automobile Manufacturers Association (ACEA), automobile motor oils are classified depending on their field of application and operational conditions.

As a rule, modern motor oils are universal in application. They can be used both for gasoline (ACEA A), and diesel engines for cars (ACEA B) and trucks (ACEA E).

Universal motor oils of the highest quality have a complex marking based on the ACEA classification, for example, ACEA A3/B3/E5. These oils can effectively protect the engine in all the operational regimes.

Due to its universal characteristics, XADO Atomic oil 10W-40 SL/CI-4 City Line is particularly recommended to be used in mixed fleets (cars and trucks).

	Application field	Operational conditions	Differences
ACEA A3	Gasoline engines (including high-power ones) of cars, small trucks, and minivans.	Multigrade application. Heavy-duty operation. Prolonged drain intervals.	Highest operational class. Increased stability of protective and viscous properties. Increased durability to high temperatures. Small foam formation.
ACEA B3	Diesel engines (including high-power ones, mostly without a direct injection) of cars, small trucks, and minivans.	Multigrade application. Heavy-duty operation. Prolonged drain intervals.	Highest operational class. Increased stability of protective and viscous properties. Small foam formation.
ACEA E5	Diesel engines (including high-power ones with the turbo-supercharging Euro-1 (2,3) of commercial vehicles).	Multigrade application. Intensive conditions of operation. Significantly prolonged drain intervals.	Highest operational class. Increased anti-wear protection. Improved cleaning properties.

## DIFFERENCES OF THE CITY LINE

XADO Atomic oil 10W-40 SL/CI-4 City Line is a budget version of XADO Atomic oil 10W-40 SL/CI-4. This oil has the mineral basis, determinative affordable price and at the same time due to the achievements in the modern chemistry, it has all the advantages of the semi-synthetic



XADO oils and meets the most demanding specifications.

**XADO Atomic oils of the City Line series are an ideal compromise between the oil type and its performance level.**



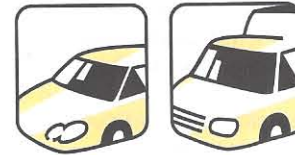


XADO Atomic Mineral Motor Oil



# 10W-30 SL/CF

Easy-flowing mineral motor oil of the highest quality.  
 Contains atomic revitalizant.  
 The base oil is made on complex basis from the high-quality oil  
 from the North Sea shelf.  
 Contains oils obtained in the result of hydrocracking synthesis.


**0,5L**

Art. XA 22011

**1L**

Art. XA 22111

**4L**

Art. XA 22211

**5L**

Art. XA 22311

**10L**

Art. XA 22411

**20L**

Art. XA 22511

**60L**

Art. XA 22611

**200L**

Art. XA 22711

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.

OILS

GREASES

REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY



# ADVANTAGES

XADO Atomic oil 10W-30 SL/CF is the best for today easy-flowing mineral motor oil. It is based on **refined oils and oils of the hydrocracking synthesis (HC)** with a package of additives. It exceeds the highest American (API SL/CF) and European (ACEA A3/B3/B4) classifications, as well as specifications of the leading automobile manufacturers (MB and VW).

**Acceleration, economy, and reliability** are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.

## ADDITIONAL ADVANTAGES

- It is used for gasoline, gas and diesel engines of cars, minivans and small trucks of all regimes of operation.
- It is specially designed to be used in modern multi-valve engines with a turbo under conditions of maximum power.
- Particularly good for intensive city conditions (frequent stops, acceleration and slowing down, as well as idling).
- Due to the high fluidity (SAE 30) under working temperatures, it lubricates and cleans engine parts, and that is why it is recommended for engine break-in of new cars and cars on warranty.
- Provides additional fuel saving up to 3 % comparing with the reference oil.
- Complex basic and special anti-foam components guarantee high stability of the oil film under heavy-duty and high temperature conditions.
- Keeps the engine perfectly clean.

## STANDARDS

XADO Atomic oil 10W-30 SL/CF exceeds top American and European classification requirements to motor oil for cars and trucks.

## BASE



The base oil for XADO Atomic oil 10W-30 SL/CF is formulated on the high-quality hydrocarbons of the oil from the North Sea shelf.

## TEMPERATURE RANGE FOR APPLICATION



## SPECIFICATIONS

SAE 10W-30  
API SL/CF  
ACEA A3/B3/B4

## OEM LEVEL

VW 500.00/505.00  
MB 229.1

## TECHNICAL INFORMATION

Density at 20 °C, kg/l	0.873
Viscosity at 100 °C, mm <sup>2</sup> /s	11.6
Viscosity at 40 °C, mm <sup>2</sup> /s	75.8
Viscosity at -20 °C, mPa s	<7,000
Viscosity index	146
Flash point, °C	218
Pour point, °C	<-33
Easy start temperature, °C	-25
Sulfated ash level, mass. %	1.0
Total base number, mgKOH/g	7.9

Note. Typical figures are presented.

## PROFESSIONAL OPINION

Street racing is very popular and has a lot of fans. And it is not surprising, as this competition is spectacular, striking, and besides, it is available for many motorcar enthusiasts.

Street racing is particularly popular among owners of tuned cars. Under conditions of traffic, it is risky to show the advantages and capabilities of your car, whereas racing gives a wonderful opportunity for that.

Everything is simple and clear. Set, go — and those who are faster, will be the first to arrive.

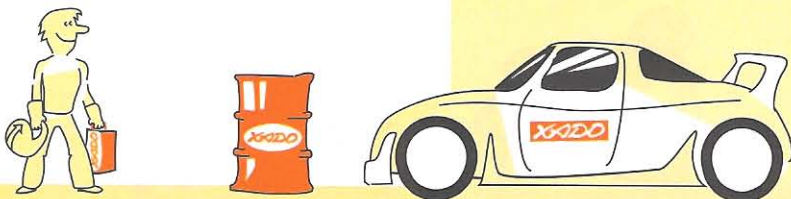
Boris Polischuk, who is more known in the circle of motorcar enthusiasts and sportsmen as Borman, is a real fan of this kind of autosports. Tuning is his profession, as he is the owner of the Borman-autosport tuning shop.

Boris made a racing car out of his Daewoo Sens, with which he became a champion of Ukraine in his class (engine volume up to 1,300 cm<sup>3</sup>), and he had numerous victories in other classes as well (1,600 and 2,000 cm<sup>3</sup>).

— *It is not enough just to "charge" the car, tells Boris. Besides the engine power, acceleration and speed range, which can be achieved by high-speed rotation of the engine, a good selection of gear-ratio, a correct set of tires and disks, reduction of the vehicle weight, and high-octane gasoline are also very important. During the races, the engine goes through overstresses. Critical stress is also applied to the transmission satellites. These assemblies will not be able to support all these without a good lubrication.*

XADO does not just let us participate in the competition (as the transmission still works even with the "worn-out" satellites); XADO helps us to win, to outrun tuned models with over 200 HP charge! Here are the test results after XADO oil application: start-up 15.2 sec. instead of 16! Speed grew from 142 to 150 kmph, and these all is only owing to the replacement of oil in the transmission and engine. And if before the oil consumption during the races was 600 g., now it is not more than 50 g.

**Car racers use the best and most reliable for competitions, and today there is nothing better than XADO oils for racing!**

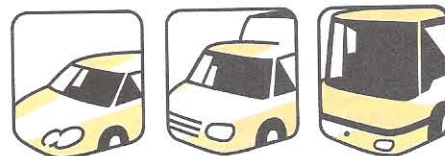


XADO Atomic Mineral Motor Oil

# 20W-50 SL/CI-4



High-viscosity mineral motor oil with high operational properties.  
Contains atomic revitalizant.  
The base oil is made using high-quality  
oil from the North Sea shelf.

**0,5L**

Art. XA 22015

**1L**

Art. XA 22115

**4L**

Art. XA 22215

**10L**

Art. XA 22415

**20L**

Art. XA 22515

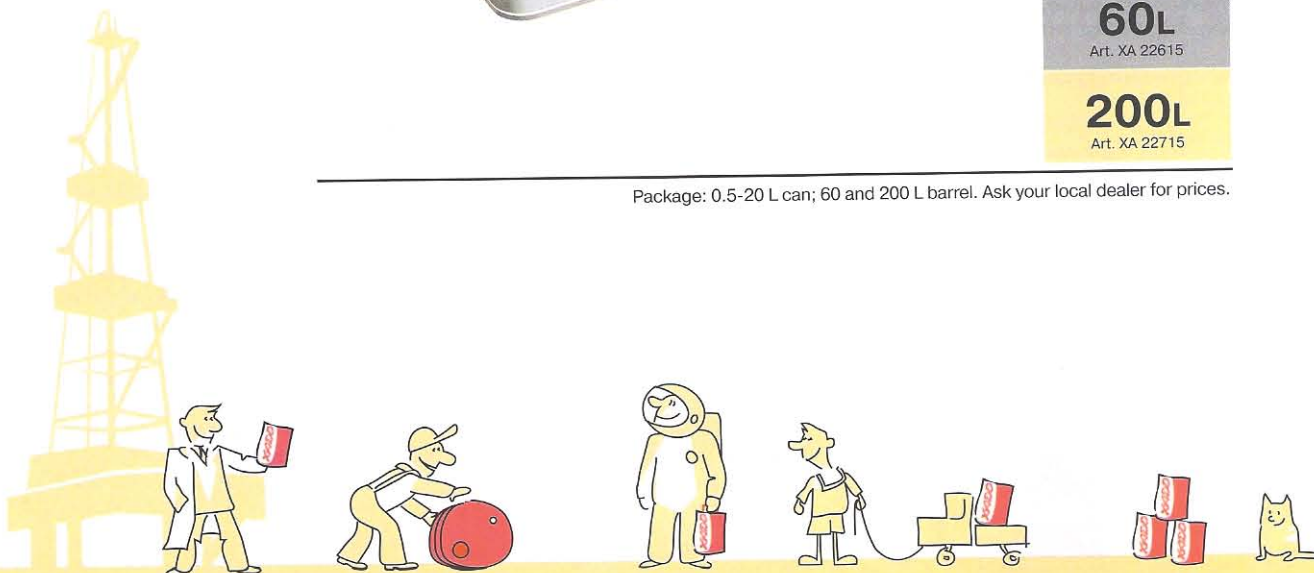
**60L**

Art. XA 22615

**200L**

Art. XA 22715

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.



# ADVANTAGES

XADO Atomic oil 20W-50 SL/CI-4 is the best for today highly viscous mineral motor oil. It is formulated on the basis of complex refined oils from the oil from the North Sea shelf. It is alloyed with a special package of additives.

**Engine reliability and unfailling performance** are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.

## ADDITIONAL ADVANTAGES

- Specially designed for intensive operation of vehicles under heavy ambient temperature (up to +50 °C).
- Effectively lubricates the engine at maximum working temperatures and high RPM.
- Owing to the high-temperature viscosity (SAE 50), it compacts gaps in the cylinder-piston group and, thus, decreases oil consumption.
- Possesses exceptional operational properties and is used in the engines with extended service intervals (up to 45,000 km for Volvo VDS-2).
- Prevents the formation of sediments and keeps engines clean.

## STANDARDS

It exceeds the requirements of the highest American (API SL/CI-4), European (ACEA A3/B3/B4/E7) and international (Global DHD-1) specifications to oils for cars and trucks. It exceeds operation standards to motor oils of the leading vehicle manufacturers (MB, Renault, MAN, etc.).

## BASE



Base oil for the XADO Atomic oil 20W-50 SL/CI-4 is made based on high-quality hydrocarbons of the oil fields in the North Sea shelf.

## TEMPERATURE RANGE FOR APPLICATION



## SPECIFICATIONS

SAE 20W-50  
API SL/CI-4/CH-4/CG-4/CF-4/CF  
ACEA A3/B3/B4/E3/E5/E7  
Global DHD-1

## OEM LEVEL

MB 228.3, 229.1  
Volvo VDS-2  
Renault (RVI) RLD  
MAN 3275  
Mack EO/M Plus  
Cummins 20,072/1/6/7/8  
Caterpillar ECF-1  
ZF 04C/07C

## TECHNICAL INFORMATION

Density at 20 °C, kg/l	0.879
Viscosity at 100 °C, mm <sup>2</sup> /s	18.5
Viscosity at 40 °C, mm <sup>2</sup> /s	168
Viscosity index	123
Flash point, °C	235
Pour point, °C	<-24
Easy start temperature, °C	-15
Sulfated ash level, mass. %	1.2
Total base number, mgKOH/g	9.5

Note. Typical figures are presented.

## SPECIFICATIONS ACEA E7

Highest European quality category for motor oils for heavy haulers (ACEA E7) was introduced in October 2004.

Oils with this specification are designed for diesel engines which conform to the highest environmental requirements on exhaust toxicity (Euro-3 (4) and work under much stress. They are perfect for use in modern engines equipped with the exhaust gas recirculation systems (EGR) or the catalyst system of the reduction of nitrogen oxide exhaust (SCR NOx reduction system).

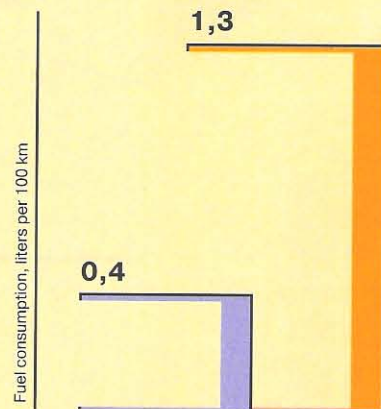
These oils differ by the high stability of the viscosity (they neither thicken nor rarefy) and provide an ideal cleanness of pistons and parts of the turbine compressor; they possess excellent lubricating properties and protect cylinders walls from being "polished".

An irrefutable advantage of the oils of the ACEA E7 category is the reduced waste consumption.

**XADO Atomic oil 20W-50 SL/CI-4 meets the requirements of the highest European quality category ACEA E7!**

## COMPARISON TESTS

XADO Atomic oil 20W-50 SL/CI-4 (reduction of oil waste consumption)  
Vehicle VAZ 2107, 1.5 liters; year of production: 1995, mileage over 215,000 km



Regular mineral oil SAE 15W-40 API SF/CC

XADO Atomic oil 20W-50 SL/CI-4

**When the engine works on XADO Atomic oil 20W-50 SL/CI-4, the oil waste consumption is reduced by over 3 times.**



XADO Atomic Semi-Synthetic Motor Oil

# 10W-40 SL/CI-4



Semi-synthetic motor oil with high operational properties.  
Contains atomic revitalizant.  
Certified by the American Petroleum Institute.  
The base oil is formulated of high-quality oil  
from the North Sea shelf by hydrocracking  
synthesis technology.



**0,5L**

Art. XA 22009

**1L**

Art. XA 22109

**4L**

Art. XA 22209

**5L**

Art. XA 22309

**10L**

Art. XA 22409

**20L**

Art. XA 22509

**60L**

Art. XA 22609

**200L**

Art. XA 22709

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.



# ADVANTAGES

XADO Atomic oil 10W-40 SL/CI-4 is a multigrade semi-synthetic oil with the highest performances. The best base oils obtained in the result of the **hydrocracking synthesis** and exclusive package of additives were used for its production. It is the best semi-synthetic oil. The characteristics of oil significantly exceed the operational requirements of auto manufactures.

**Power, reliability and economy** are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.

## ADDITIONAL ADVANTAGES

- Universal in application for various engines of vehicles, minivans, small and heavy trucks, prime movers, and buses.
- It is especially efficient for all-season use in engines of cars, including modern ones (multi-valve, with turbo, and diesel engines with the direct injection).
- Provides stable high protective properties during engine break-in and during the main period of engine running.
- Saves fuel due to the reduction of waste on friction, in particular during the engine start and when idling.
- Guarantees prolonged engine resource of both a new car and car with mileage due to the resource saving effect of the revitalizant.

## CERTIFICATION

The oil was officially licensed by the **API, American Petroleum Institute**. It corresponds to the highest world standards both for gasoline (API SL) and diesel engines (API CI-4). The oil has been approved by the **VOLVO Technology Corporation** and recommended to use in warranty and after-sales servicing of Volvo vehicles, where motor oil with VDS-2 requirements are recommended to be used.



## BASE



The base oil for XADO Atomic oil 10W-40 SL/CI-4 is formulated on the high-quality hydrocarbons of the oil from the North Sea shelf by technology of the hydrocracking synthesis (HC).

## SPECIFICATIONS

**SAE 10W-40**

**API SL/CI-4/CH-4/CG-4/CF-4/CF**

**ACEA A3/B3/B4/E3/E5**

**Global DHD-1**

## OEM LEVEL

**VW 500.00/505.00**

**MB 228.3, 229.1**

**Volvo VDS-2, VDS-3**

**MAN 3275**

**Renault (RVI) RLD**

**Mack EO/M PLUS**

**Allison C-4**

**MTU Type 2**

**Cummins 20,071/2/6/7/8**

**ZF TE-ML 02C/03A/04B/04C/07C**

## TECHNICAL INFORMATION

Density at 20 °C, kg/l	0.8705
Viscosity at 100 °C, mm <sup>2</sup> /s	14.0
Viscosity at 40 °C, mm <sup>2</sup> /s	94.9
Viscosity at -20 °C, mPa s	6,390
Viscosity index	155
Flash point, °C	211
Pour point, °C	<-36
Easy start temperature, °C	-25
Sulfated ash level, mass. %	1.37
Total base number, mgKOH/g	10.3

Note. Typical figures are presented.

## SPECIFICATIONS API SL

The highest American category of oil quality for gasoline engines API SL was introduced in July 2001.

The development of API SL oils was conducted to improve the three most important factors of oil work in an engine: fuel saving, oil consumption reduction and drain intervals prolongation.

### Advantages when using API SL oils:

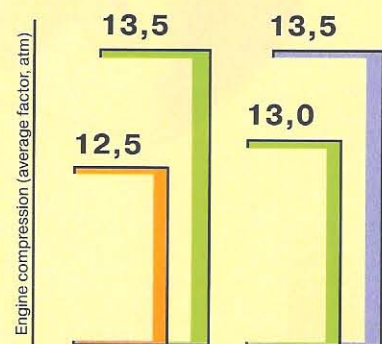
- Reduction of oil waste consumption (up to 40 %);
- Increased service life of the catalytic converters;
- Decreasing of expenditures on fuels;
- Reduction of atmospheric pollution;
- Clean piston rings;
- Improvement of turbine compressor characteristics;
- Clean engine;
- Improvement of oil pumpability.

## TEMPERATURE RANGE FOR APPLICATION



## COMPARISON TEST

XADO Atomic oil 10W-40 SL/CI-4 (engine compression)



The car Skoda Octavia, year of production: 1999, mileage in the beginning of the test: 40,260 km. After the mileage of 57,500 km with regular semi-synthetic oil SAE 10W-40 API SJ/CF, the compression reduced.

The car Skoda Octavia, year of production: 1998, mileage in the beginning of the test: 42,420 km. After the mileage of 58,000 km with XADO Atomic oil 10W-40 SL/CI-4, the compression even increased.

- Compression index at the beginning of the trial
- Usual semi-synthetic oil
- XADO Atomic oil 10W-40 SL/CI-4

**The compression in the engine working on XADO Atomic oil is on the standard level!**



XADO Atomic Semi-Synthetic Motor Oil

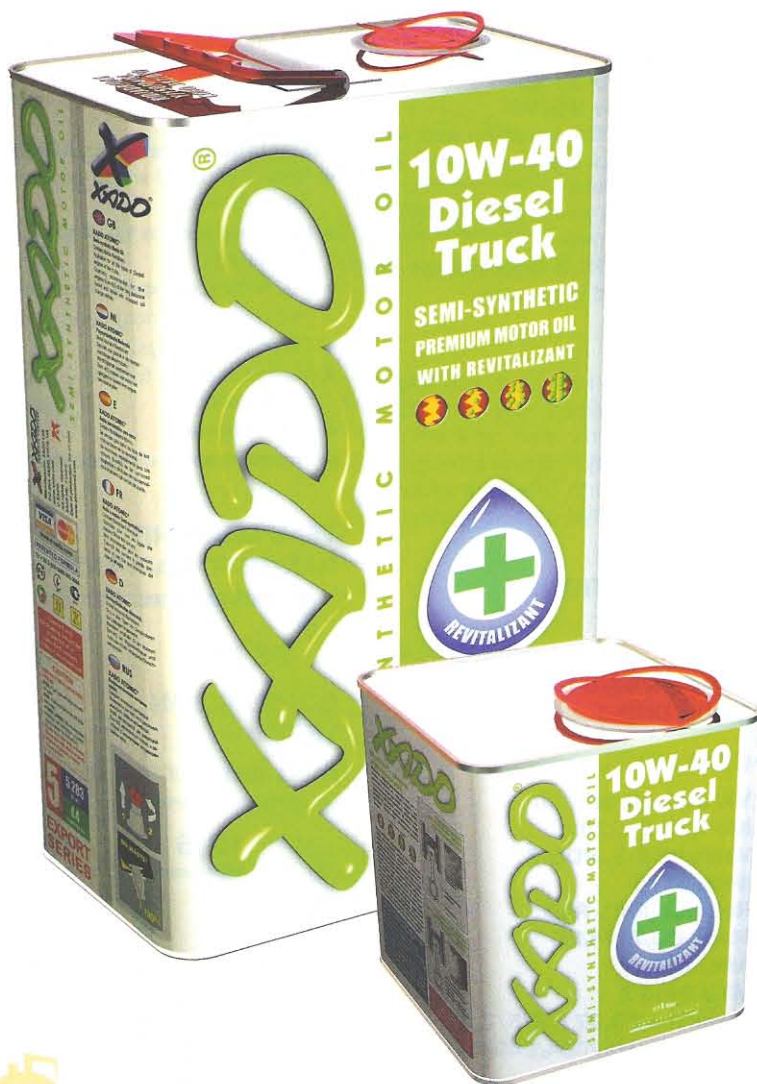
# 10W-40 DIESEL TRUCK



Semi-synthetic oil of the highest quality for diesel engines of heavy haulers.

Contains atomic revitalizant.

The base oil is formulated on the high-quality oil from the North Sea shelf by hydrocracking technology.



**0,5L**  
Art. XA 22010

**1L**  
Art. XA 22110

**5L**  
Art. XA 22310

**10L**  
Art. XA 22410

**20L**  
Art. XA 22510

**60L**  
Art. XA 22610

**200L**  
Art. XA 22710

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.



# ADVANTAGES

XADO Atomic oil 10W-40 Diesel Truck is a multigrade semi-synthetic oil of the highest class for diesel engines of heavy haulers. It is created on the base oil by **hydrocracking synthesis technology** with a very high viscosity index, and supplemented with a package of active additives developed for diesel engines operating under much stress. Its characteristics exceed the requirements of the strictest European specifications ACEA E4 and requirements of the leading automobile manufacturers MB 229.5, VDS-2, and MAN 3277 to oils for Ultra High Performance Diesel engines (UHPD).

**Engine resource, reliability, and power** are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.

## ADDITIONAL ADVANTAGES

- Provides reliable operation of engines for heavy haulers in all the regimes of operation, including regimes of maximum speeds and stresses, as well as during long trips.
- Particularly recommended for vehicles specialized in international hauling, viz. national buses and prime movers.
- Possesses unique performances and provides significantly prolonged drain intervals (over 120,000 km).
- High total base number (TBN>15.0) provides a reliable protection of the engine even if using the fuel with high sulfur content.
- Keeps the engine in ideal condition and significantly decreases maintenance costs.
- Provides full fuel combustion significantly reducing harmful exhausts into the atmosphere.
- Due to the revitalizant, it provides exclusive wear protection of the engine and turbo, as well as the cylinder walls from "polishing", prolonging the service life by 2-3 times.

## STANDARDS

XADO Atomic oil 10W-40 Diesel Truck exceeds the requirements of the strictest European specification ACEA E4 to oils for Ultra High Performance Diesel engines (UHPD) and is recommended to be used in Euro-3 engines (increasing the environmental safety).

## BASE



The base oil for XADO Atomic oil 10W-40 Diesel Truck is based on the high-quality hydrocarbons of the oil from the North Sea shelf by the hydrocracking synthesis technology (HC).

## TEMPERATURE RANGE FOR APPLICATION



## SPECIFICATIONS

SAE 10W-40  
API CF  
ACEA E4

## OEM LEVEL

MB 228.5  
Volvo VDS-2  
Scania Long drain  
MAN 3277  
Renault (RVI) D5R  
MTU Type 3

## TECHNICAL INFORMATION

Density at 20 °C, kg/l	0.873
Viscosity at 100 °C, mm <sup>2</sup> /s	14.1
Viscosity at 40 °C, mm <sup>2</sup> /s	.90
Viscosity at -20 °C, mPa s	7,000
Viscosity index	150
Flash point, °C	220
Pour point, °C	<-36
Easy start temperature, °C	-25
Sulfated ash level, mass. %	1.8
Total base number, mgKOH/g	15.4

Note. Typical figures are presented.

## PERMIT INFORMATION

### MB 228.5

World-renowned automobile concern Mercedes-Benz is a recognized global leader in manufacturing of heavy haulers with prolonged drain intervals.

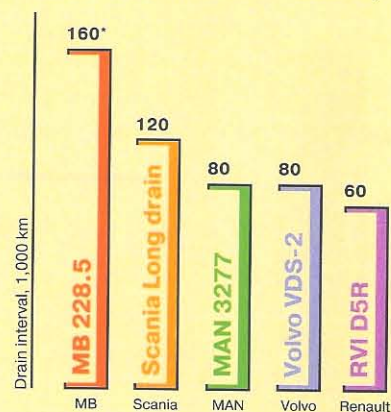
In 1996, MB designers developed and introduced specifications for oils MB 228.5 particularly for perspective Ultra High Performance Diesel engines (UHPD). Oils meeting this specification differ by stronger adhesiveness and resistance to shear deformation at high temperatures what allows them to resist successfully such problems as "polishing" (wear) of the cylinder walls.

High stability to oxidation and excellent detergent-dispersing oil properties are proved by special motor tests. These qualities keep engine clean and ensure ideal mobility of rings.

Oils of this specification are notable for minimum waste consumption which is particularly important for heavy haulers who drive lots of miles. However, the main advantage of MB 228.5 oils is the fact that these oils are for extremely long drain intervals up to 100,000 km or even 160,000 km (for engines with additional filtration system)!

## REFERENCE DATA

XADO Atomic oil 10W-40 Diesel Truck. Maximum drain intervals in engines of heavy haulers (based on manufacturer's recommendations)



\* when using additional filtration system

**XADO Atomic oil 10W-40 Diesel Truck provides maximum possible drain intervals.**

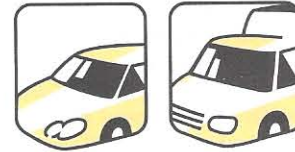






# 5W-40 SL/CF CITY LINE

The best semi-synthetic motor oil with synthetic viscosity.  
Contains atomic revitalizant.  
Certified by the American Petroleum Institute.  
It is formulated on the basis of the high-quality oil  
from the North Sea shelf on the best base oils produced  
by hydrocracking synthesis technology.



**0,5L**

Art. XA 22008

**1L**

Art. XA 22108

**4L**

Art. XA 22208

**10L**

Art. XA 22408

**20L**

Art. XA 22508

**60L**

Art. XA 22608

**200L**

Art. XA 22708

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.

OILS

GREASES

REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY



# ADVANTAGES

XADO Atomic oil 5W-40 SL/CF City Line is an easy-flowing semi-synthetic oil with the performances of synthetic oil. It is created on the basis of special base oils produced by **technology of the hydrocracking synthesis** with a super high viscosity index and exclusive additives package. It exceeds the highest American (API SL/CF) and European (ACEA A3/B3/B4) classifications, as well as specifications of the leading automobile manufacturers (Opel, MB, VW, BMW, and Porsche).

**Economy, power, and smooth operation** are maintained on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.

## ADDITIONAL ADVANTAGES

- Specially designed for city driving.
- Provides an excellent protection and reliable lubrication of the engine when working in "start-stop" conditions and dynamic cold start.
- Due to excellent low-temperature qualities, it provides exceptionally easy cold start even if the temperature is below  $-30^{\circ}\text{C}$ .
- Possesses high and stable performances at prolonged drain intervals — from 50,000 km (admission GM-LL-B-025).
- High easy fluidity of oil enables significant fuel saving when starting engine.
- Notable for low waste consumption.
- Keeps engine perfectly clean.

## CERTIFICATION

The oil is officially licensed by the **API, American Petroleum Institute**. It corresponds to the highest world standards both for gasoline (API SL) and diesel engines (API CF). The oil was officially recommended by the **GM/OPEL** to use for warranty and post-warranty maintenance of vehicles where motor oils like GM-LL-B-025 are recommended to be used.



## BASE

The base oil for XADO Atomic oil 5W-40 SL/CF City Line is produced by hydrocracking synthesis technology with a super high viscosity index ( $VI > 170$ ). The base oils are obtained from the oil fields from the North Sea shelf.



## TEMPERATURE RANGE FOR APPLICATION



## SPECIFICATIONS

**SAE 5W-40**  
**API SL/CF**  
**ACEA A3/B3/B4**

## OEM LEVEL

**GM-LL-B-025**  
**MB 229.3**  
**VW 502.00/505.00**  
**BMW Longlife**  
**Porsche**

## TECHNICAL INFORMATION

Density at $20^{\circ}\text{C}$ , kg/l	0.849
Viscosity at $100^{\circ}\text{C}$ , $\text{mm}^2/\text{s}$	13.8
Viscosity at $40^{\circ}\text{C}$ , $\text{mm}^2/\text{s}$	82.8
Viscosity at $-20^{\circ}\text{C}$ , mPa s	<6,600
Viscosity index	171
Flash point, $^{\circ}\text{C}$	222
Pour point, $^{\circ}\text{C}$	<-42
Easy start temperature, $^{\circ}\text{C}$	-30
Sulfated ash level, mass. %	1.20
Total base number, mgKOH/g	10.3

Note. Typical figures are presented.

## PERMIT INFORMATION GM-LL-B-025

Since 2004, Opel General Motors (GM) manufactures cars equipped with the system of flexible maintenance (ECO Service-Flex) which enables to control the drain intervals. The oil for such vehicles must meet the special requirements of Opel Long Life (GM-LL). Researchers at General Motors who had been working for many years on how to improve the oil system of the engine, came to the conclusion, that the main performance criteria impacting the drain interval, are as follows:

- Nominal conditions during long trips at high speed on a highway;
- Loaded high-temperature conditions when hauling;
- City conditions with frequent stops and accelerations;
- Dynamic cold engine start.

In the first three cases the most important for oil is its resistance to high temperatures; during the cold start oil should be stable to moisture condensation and formation of slime sedimentation.

Based on consideration of these aspects, the requirements GM-LL-B-025 Opel Long Life have been developed.

Oils meeting these requirements are easy-flow oils with the viscosity SAE 0/5W-30/40 of the highest quality class (ACEA A3/B3/B4) with reduced waste consumption.

They have been tested according to a very strict program. Thus, diesel engine tests with direct injection (DI) are conducted for 400 hours. A number of parameters are checked, including oil stability to high temperatures, ability to resist slime contamination, anti-foam properties, etc.

The oils which successfully pass the test receive the Opel (GM-LL) approval. The drain interval for these types of oil for diesel engines is up to 50,000 km.

Oils with GM-LL-B-025 approval can also be used in Opel gasoline engines. They have drain intervals up to 30,000 km (GM-LL-A-025).

## DIFFERENCES OF THE CITY LINE



XADO Atomic oil 5W-40 SL/CF City Line is a budget version of XADO Atomic oil 5W-40 SL/CF. This oil has a semi-synthetic base, an affordable price, and at the same time due to the achievements of the modern chemistry it possesses all the advantages of

XADO Atomic oils and corresponds to the highest specifications.

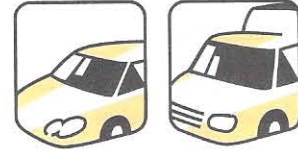
**XADO Atomic oil of the City Line series is an ideal compromise between the oil type and its performance level.**





# 5W-40 SL/CF

Synthetic easy-flowing motor oil of the highest class.  
Contains atomic revitalizant.  
The base oil is formulated on the basis  
of synthetic polyalphaolefines.



**0,5L**

Art. XA 22006

**1L**

Art. XA 22106

**4L**

Art. XA 22206

**10L**

Art. XA 22406

**20L**

Art. XA 22506

**60L**

Art. XA 22606

**200L**

Art. XA 22706

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.

OILS

GREASES

REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY



# ADVANTAGES

XADO Atomic oil 5W-40 SL/CF is easy-flowing synthetic motor oil, the most popular one among the existing oils. It is created using a special sort of polyalphaolefines — decenes, which are ideal for the synthetic oils of the highest quality. It is alloyed with a special package of modern additives.

XADO Atomic oil 5W-40 SL/CF does not only meet all the top API SL/CF and ACEA A3/B3 specifications, but also significantly exceeds them.

**Economy, power and smooth operation** are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.

## ADDITIONAL ADVANTAGES

- Ideal for modern multi-valve gasoline and diesel engines with turbo, including those with intermediate cooling system.
- Particularly recommended for diesel engines of the latest generation with direct injection (Pumpe-Düse). It is specially tested to protect the lobes of the drive gear of the high-pressure injector pump (over 2,000 atmospheres).
- Provides easy and smooth operation of gasoline, diesel, and gas engines in city and on highway, irrespectively of a season.
- Immediately reaches all the points of lubrication system at the lowest temperatures (below -30 °C).
- Due to the synthetic viscosity SAE 5W-40 it keeps the oil pressure optimal in all operating modes of the engine.
- Particularly aging-resistant; possesses stable viscous properties of new synthetic oil (over 15,000 km).

## STANDARDS

XADO Atomic oil 5W-40 SL/CF exceeds the highest American and European classification requirements to motor oils for cars.

## BASE



The base XADO Atomic oil 5W-40 SL/CF is formulated on decenes (a particular sort of synthetic hydrocarbons — polyalphaolefines), obtained from the oil components from the fields of the North Sea shelf.

## TEMPERATURE RANGE FOR APPLICATION



## SPECIFICATIONS

SAE 5W-40  
API SL/CF  
ACEA A3/B3

## OEM LEVEL

VW 500.00/505.00  
VW 505.01 (Pumpe-Düse)  
MB 229.1  
Porsche  
Ford M2C-917A (TDI)

## TECHNICAL INFORMATION

Density at 20 °C, kg/l	0.853
Viscosity at 100 °C, mm <sup>2</sup> /s	14.0
Viscosity at 40 °C, mm <sup>2</sup> /s	88
Viscosity at -20 °C, mPa s	5,470
Viscosity index	163
Flash point, °C	225
Pour point, °C	<-39
Easy start temperature, °C	-30
Sulfated ash level, mass. %	1.2
Total base number, mgKOH/g	9.7

*Note.* Typical figures are presented.

## PERMIT INFORMATION VW 505.01

Cars with diesel engines become more and more popular in Europe. A particular place among them is taken by highly economical and environmentally friendly engines of Volkswagen with the injection system of a pump-injector (Pumpe-Düse). Such engines require oil with particular properties.

Pistons of pump-injectors are activated by the lobes of a button shaft. The lobes provide a precise dosage and high pressure of the injection (over 2,000 atmosphere), and work under much stress.

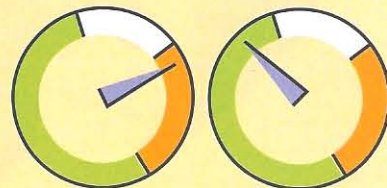
That is why the motor oil should protect them from high loads and burrs on the sliding surface.

XADO Atomic Oil 5W-40 SL/CF is specially tested, and meets the strictest specification VW 505.01 for oils used in diesel engines with pump-injectors.

## COMPARISON TESTS

(oil resource, results of check measurement)\*

Car: Opel Omega-B, 2.0i 16V, year of production 1997.



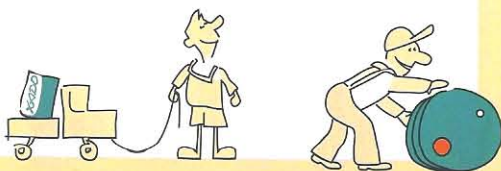
Date: October 08, 2003.  
Ordinary oil  
SAE 5W-40 API SJ/CF  
Oil non-failure operating time 14,700 km.  
The oil used the resource in full and shall be replaced.

Date: May 10, 2004.  
XADO Atomic oil 5W-40 SL/CF  
Oil non-failure operating time 15,600 km.  
Oil is in norm!

Oil in norm  
Oil shall be replaced  
Oil cannot be used

\* Tests were completed using the following equipment: SKF OilChek TMEH 1

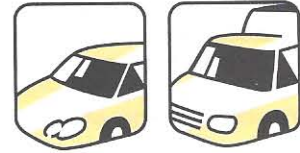
**XADO Atomic oil 5W-40 SL/CF has a significant performance level reserve that can be easily checked with modern devices.**



XADO Atomic Synthetic Motor Oil

**5W-50 SL/CF**

Fully synthetic motor oil with excellent performances.  
Contains atomic revitalizant.  
The base oil is formulated on the synthetic polyalphaolefine components.

**0,5L**

Art. XA 22007

**1L**

Art. XA 22107

**4L**

Art. XA 22207

**10L**

Art. XA 22407

**20L**

Art. XA 22507

**60L**

Art. XA 22607

**200L**

Art. XA 22707

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.



# ADVANTAGES

XADO Atomic oil 5W-50 SL/CF is a multigrade fully synthetic oil for extreme operating regimes. It is created using the complex synthetic base oils. This oil contains **polyalphaolefine (PAO)** and is notable for high stability under extreme loads. XADO Atomic oil 5W-50 SL/CF contains also a top quality additives package. That is why it meets the highest requirements and significantly exceeds them.

**Power reserve and acceleration** are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.

## ADDITIONAL ADVANTAGES

- Indispensable for those who love sports driving, as the revitalizant protects engine against wear during acceleration and prolonged extreme loads.
- Particularly efficient for sports cars and all-wheel drive off-highway trucks when operating with maximum power and under significant thermal stress.
- Possesses the best protective properties. Stable even with prolonged drain intervals; has BMW Longlife approval.
- Due to the high viscous-temperature properties, which correspond to the SAE 5W-50 class, it provides fast oil delivery to all the lubrication points; effectively protects the engine during cold start and provides easy start at very low temperatures.
- It can be used off-season for various models of gasoline, gas, and diesel cars, small trucks, and minivans.

## STANDARDS

XADO Atomic oil 5W-50 SL/CF exceeds the highest American and European classification requirements to motor oils for cars.

## BASE



The base XADO Atomic oil 5W-50 SL/CF is created using the synthetic hydrocarbons (polyalphaolefines), obtained from the oil components from the North Sea shelf.

## TEMPERATURE RANGE FOR APPLICATION



## SPECIFICATIONS

SAE 5W-50  
API SL/CF  
ACEA A3/B3

## OEM LEVEL

BMW Longlife  
VW 501.00/505.00  
Porsche

## TECHNICAL INFORMATION

Density at 20 °C, kg/l . . . . .0.850  
Viscosity at 100 °C, mm<sup>2</sup>/s . . . .18.4  
Viscosity at 40 °C, mm<sup>2</sup>/s . . . .119  
Viscosity at -20 °C, mPa s . . .5,120  
Viscosity index . . . . .171  
Flash point, °C . . . . .224  
Pour point, °C . . . . .<-45  
Easy start temperature, °C . . . .-30  
Sulfated ash level, mass. % . . . .1.19  
Total base number, mgKOH/g . .9.7

*Note.* Typical figures are presented.

## INFORMATION ABOUT BMW LongLife APPROVAL

BMW, Bayerische Motoren Werke Group, is a world leading prestigious automobile manufacturer. It manufactures reliable gasoline engines with prolonged oil drain intervals. These engines require oil marked "BMW Longlife".

The oil is tested on a full-size bench engine BMW M44 following a strict schedule.

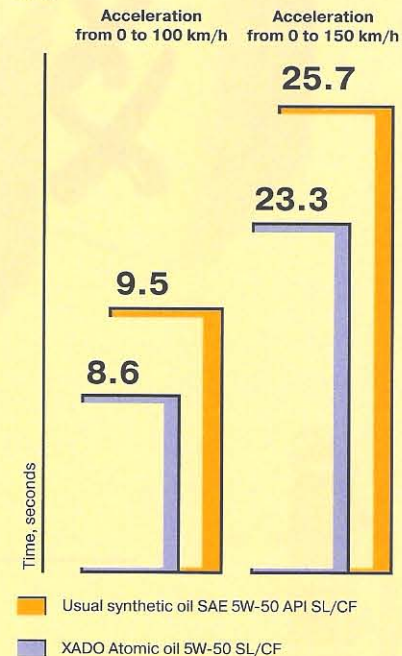
After testing, the oil is poured out, and the engine is disassembled. Laboratory testing of the used oil is conducted, and the engine condition is evaluated.

Only the oil which meets the strict BMW requirements can get BMW Longlife approval to be used in BMW vehicles.

## COMPARISON TESTS

XADO Atomic oil 5W-50 SL/CF (accelerating dynamics)

The car: BMW 525i, 24V (E34), year of production 1996.



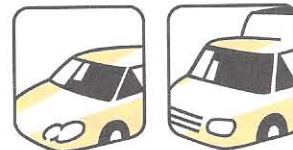
When the engine works on XADO Atomic oil, power increases and the accelerating dynamics of the car improve.



XADO Atomic Synthetic Motor Oil

**10W-60 SL/CF RALLY SPORT**

Synthetic racing motor oil of the highest class.  
Contains atomic revitalizant.  
The base oil is formulated on the basis  
of the synthetic polyalphaolefine components.



**0,5L**  
Art. XA 22004

**1L**  
Art. XA 22104

**4L**  
Art. XA 22204

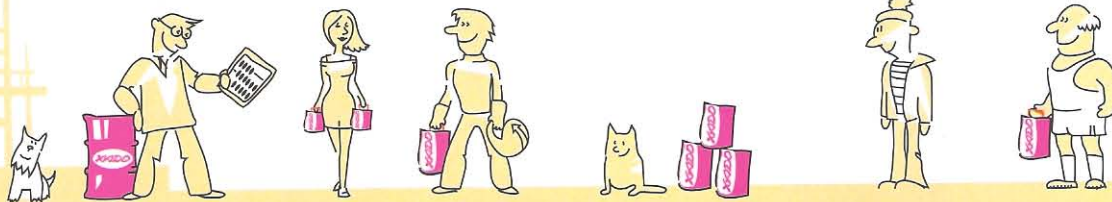
**10L**  
Art. XA 22404

**20L**  
Art. XA 22504

**60L**  
Art. XA 22604

**200L**  
Art. XA 22704

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.



# ADVANTAGES

XADO Atomic oil 10W-60 SL/CF Rally Sport is the best synthetic motor oil for racing. It is made on special completely synthetic hydrocarbon base oils – **poly-alphaolefines (PAO)**. It is alloyed with a special additives package. It has multigrade application for gasoline, gas, and diesel engines. It is ideal for modern multi-valve engines with turbo including those with intermediate cooling system. It is particularly recommended for engines of racing and sports cars.

**Maximum power, breakdown dynamics, and the durability at extreme loads and speed are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.**

## ADDITIONAL ADVANTAGES

- Designed especially for extreme regimes of operating in rally, tracks, and other types of racing.
- Effectively protects the engine from wear at maximum rotations and maximum working temperatures.
- Owing to the maximum high-temperature viscosity (SAE 60), it firms gaps in the cylinder-piston group and keeps the maximum engine power.
- Prevents "dry" friction of parts at overloads in dynamic conditions and during the cold start.
- Provides notably low waste oil consumption due to minimum evaporation losses.
- Keeps the engine perfectly clean.

## STANDARDS

It exceeds the requirements of the highest American (API SL/CF) and European (ACEA A3/B3/B4) classifications, as well as specifications of the leading automobile manufacturers (BMW, MB, Porsche, and VW).

## BASE



The base XADO Atomic oil 10W-60 SL/CF Rally Sport is created on the synthetic hydrocarbons (polyalphaolefines), obtained from the oil components from the North Sea shelf.

## TEMPERATURE RANGE FOR APPLICATION



## SPECIFICATIONS

SAE 10W-60  
API SL/CF  
ACEA A3/B3/B4

## OEM LEVEL

VW 500.00/505.00  
MB 229.1  
BMW  
Porsche

## TECHNICAL INFORMATION

Density at 20 °C, kg/l	0.854
Viscosity at 100 °C, mm <sup>2</sup> /s	25.1
Viscosity at 40 °C, mm <sup>2</sup> /s	178.0
Viscosity index	174
Flash point, °C	227
Pour point, °C	<-36
Easy start temperature, °C	-25
Sulfated ash level, mass. %	1.0
Total base number, mgKOH/g	8.1

Note. Typical figures are presented.

## SPECIFICATIONS SAE J 300

Differentiating motor oils by viscosity using standards developed by the American Society of Automotive Engineers (SAE), was begun in the 20th century. Current specification SAE J 300 of viscosity of motor oils was introduced in December 1999. Both producers of oils, as well as automobile manufacturers from all over the world use it.

The specification establishes oil marking depending on their viscosity at low temperatures (engine cold start) and at high (working) temperatures.

The SAE J 300 specification defines requirements for the viscosity of "winter" (SAE 0W, 5W, 10W, 15W, 20W, 25W) and "summer" (SAE 20, 30, 40, 50, 60) motor oils. Oils, which can satisfy requirements to both "summer" and "winter" ones, are called multi-grade oils. According to the SAE J 300 specification, they are marked as SAE 0W-30, 10W-40, 5W-50, or 10W-60.

With the help of these markings, it is easy to determine oil viscosity. The lower is the number before the letter "W" (which stands for "winter"), the easier it will be to start an engine at low temperatures (See Note). Thus, the easiest start will be with the SAE 0W-30(40) oil. The bigger the number before the "summer" viscosity, the better is the carrying capacity of the oil at working temperature. The oil with the viscosity of SAE 10W-60 stands extreme temperature loads and rally rides.

## Note.

The "minus 35" rule.

Subtract 35 from the first number of the viscosity and you will get the temperature, when your engine will easily start on this oil. For example, the oil 5W-50 can be used with the temperature below -30 °C.

(5 - 35 = -30 °C).



Chemical Concern XADO  
is an official partner  
of the "KAMAZ - Master" team,  
a seven-time winner of the  
Paris-Dakar Rally.

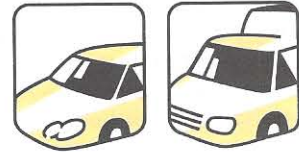






# 0W-40 SL/CF

Synthetic motor oil of the latest generation with unique performances. Contains atomic revitalizant. The base oil is formulated on the basis of the complex synthetic components: polyalphaolefines and esters.



**0,5L**

Art. XA 22002

**1L**

Art. XA 22102

**4L**

Art. XA 22202

**10L**

Art. XA 22402

**20L**

Art. XA 22502

**60L**

Art. XA 22602

**200L**

Art. XA 22702

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.

OILS

GREASES

REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY



# ADVANTAGES

XADO Atomic oil 0W-40 SL/CF is the best of the currently developed motor oils. It is extra class motor oil based on the complex synthetic base oils of the highest quality, which contain esters and polyalphaolefines (PAO). It also includes the newest and best for today package of additives. XADO Atomic oil 0W-40 SL/CF meets the strictest requirements of the automobile manufacturers.

**Comfort, dynamics, and power** are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.

## ADDITIONAL ADVANTAGES

- Particularly effective for modern cars with forced engines, including those equipped with a turbo, a system of intermediate cooling of the forced air, as well as perspective models of diesel engines with a direct injection (DI types).
- Guarantees the protection of the engine, when working at high speed. It can perfectly maintain a sports style of driving.
- It is indispensable for engine break-in in a new car, as it significantly reduces the wear of engine parts when running in.
- Possess unique protective properties, which are kept stable even under prolonged drain intervals, what is required by VW 503.01 approval (30,000 km drain interval).
- Takes care of an engine and keeps its parts exclusively clean.
- Guarantees easy engine start at any extremely low (arctic) temperatures.
- Effectively protects engines at critical loads (maximum rotation, overheating, uphill driving, all-wheel driving off the road, rally, trophy, etc.).

## STANDARDS

XADO Atomic oil 0W-40 SL/CF significantly exceeds the requirements of the highest standards to motor oil for European and American cars.

## BASE

XADO Atomic oil 0W-40 SL/CF is formulated on the basis of the complex of high-quality base synthetic oils, esters and polyalphaolefines (PAO) of the leading European manufacturers.

## SPECIFICATIONS

SAE 0W-40  
API SL/CF  
ACEA A3/B3/B4

## OEM LEVEL

VW 503.01  
VW 502.00/505.00  
MB 229.3, 229.1  
BMW Longlife  
Porsche

## TECHNICAL INFORMATION

Density at 20 °C, kg/l	0.858
Viscosity at 100 °C, mm <sup>2</sup> /s	13.2
Viscosity at 40 °C, mm <sup>2</sup> /s	72.6
Viscosity at -20 °C, mPa s	6,050
Viscosity index	186
Flash point, °C	220
Pour point, °C	<-48
Easy start temperature, °C	-35
Sulfated ash level, mass. %	1.2
Total base number, mgKOH/g	10.8

Note. Typical figures are presented.

From the first kilometers, XADO Atomic oil starts taking care of the engine parts, preventing metal atoms from wearing away, and returning them to the metal surface with the help of the revitalizant. We are talking about small amounts of metal (grams), returned to the shaft journals, bearing brasses and cylinder walls. These are the grams, retrieved after the first kilometers of operation, and which can secure a great engine resource for you in the future.

## INFORMATION ABOUT VW 503.01 APPROVAL

The Volkswagen Concern, which also includes Audi, Skoda and Seat is at the forefront in designing and manufacturing of vehicles with prolonged maintenance periods. For a car owner it means that oil should be replaced not once a year or after 15,000 km, but possibly in two or three years or after 30,000 km!

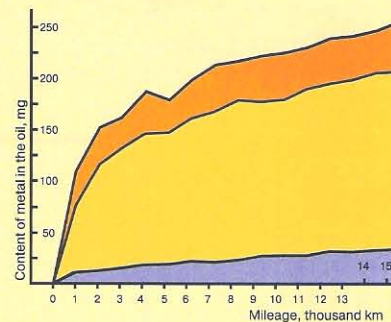
All this required designing special engines and use of particular oils. Oils, which can effectively lubricate and protect the engine from wear, receive the special Volkswagen approval upon completing tests. Such oils for gasoline engines are marked with VW 503.01. Application of oils with VW 503.01 marking for Audi TT 3.0 V5, and Audi A8 6,0 V12 vehicles is mandatory. XADO Atomic oil 0W-40 SL/CF meets the strictest requirements of the Volkswagen Concern and satisfies the VW 503.01 approval requirements.

## TEMPERATURE RANGE FOR APPLICATION

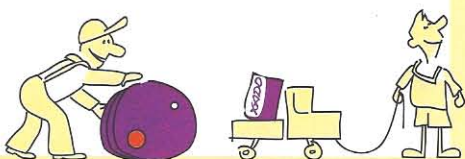


## COMPARISON TESTS

XADO Atomic oil 0W-40 SL/CF (anti-wear properties) engine 1.4 i, 68 h.p.



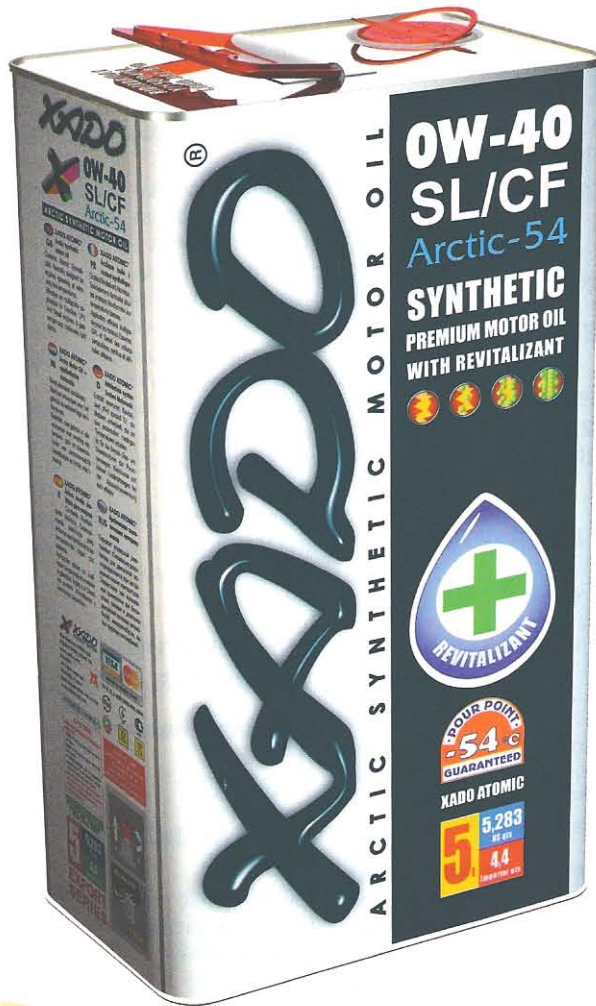
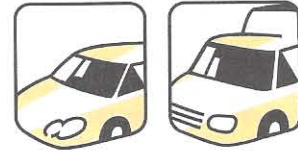
- Regular synthetic oil SAE 0W-40 API SH
- Regular synthetic oil SAE 0W-40 API SL
- XADO Atomic oil 0W-40 SL/CF



XADO Atomic Synthetic Motor Oil

**0W-40 SL/CF ARCTIC -54**

Arctic synthetic motor oil with the highest performances.  
Contains atomic revitalizant.  
The base oil is made based on the special complex  
easy-flowing synthetic components.

**5L**

Art. XA 22303

**10L**

Art. XA 22403

**20L**

Art. XA 22503

**60L**

Art. XA 22603

**200L**

Art. XA 22703

Package: 5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.



# ADVANTAGES

XADO Atomic oil 0W-40 SL/CF Arctic -54 is the best currently developed arctic synthetic motor oil. It is ideal for engines, operated at extremely low ambient temperatures.

It is made based on **complex easy-flowing synthetic base oil**. It is alloyed with a special additives package.

It exceeds the requirements of the American (API SL/CF) and European (ACEA A3/B3) classifications, as well as specifications of the leading automobile manufacturers (MB and VW) to oils for gasoline and diesel cars and small trucks.

**Safe low-temperature start and work reliability of the engine** are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.

## ADDITIONAL ADVANTAGES

- Specially designed to be used in vehicles at extremely low (arctic) temperatures.
- Due to the complex synthetic base, it possesses the best low-temperature viscous properties and keeps the fluidity up to -54 °C.
- Possesses excellent pumpability and gets to all the lubrication points three times faster comparing with regular synthetic oils SAE 5W-40, 5W-30, when the engine is started.
- Provides an exceptionally easy cold start of the engine with the ambient temperature up to -45 °C.
- Due to the wide range of the viscosity (SAE 0W-40), it is efficient for multigrade application.
- Effectively lubricates and has perfect performances.
- Prevents the formation of contamination and keeps the engine clean.
- Notable for low waste oil consumption.

## STANDARDS

XADO Atomic oil 0W-40 SL/CF Arctic -54 significantly exceeds the requirements of the highest standards to motor oils for European and American vehicles.

## BASE

It is based on the special complex easy-flowing synthetic base oil.

## TEMPERATURE RANGE FOR APPLICATION



## SPECIFICATIONS

SAE 0W-40  
API SL/CF  
ACEA A3/B3

## OEM LEVEL

MB 229.1  
VW 500.00/505.00

## TECHNICAL INFORMATION

Density at 20 °C, kg/l	0.848
Viscosity at 100 °C, mm <sup>2</sup> /s	14.5
Viscosity at 40 °C, mm <sup>2</sup> /s	87.8
Viscosity at -35 °C, mPa s	<6,100
Viscosity index	172
Flash point, °C	215
Pour point, °C	<-54
Easy start temperature, °C	-42
Total base number, mgKOH/g	9.7

Note. Typical figures are presented.

## SPECIAL INFORMATION

Such oil properties as pumpability, viscosity, and fluidity are particularly important at cold start of an engine.

The easier the oil is flushed by the pump, the faster it gets to the lubrication points of an engine (bearings of the crankshaft and gas-distributing mechanism), and the less is the possibility of the starting wear.

For the crankshaft to rotate easier, when the engine is cold started, the oil viscosity should be low.

The pumpability and low-temperature viscosity is characterized by the number, which stands before the symbol "W", when marking the oil viscosity. The lower the number is, the better the low-temperature properties of the oil are. These are the oils with the viscosity of SAE 0W-40 and SAE 0W-30.

The oil fluidity at low temperatures characterizes its capability to flow freely. The special arctic oils have this temperature below -50 °C.

XADO Atomic oil 0W-40 SL/CF Arctic -54 possesses the best low-temperature properties; it has the viscosity SAE 0W-40 and fluidity below -54 °C.

## COMPARISON TESTS

XADO Atomic oil 0W-40 SL/CF Arctic -54 (low-temperature properties)

Test conditions: temperature -50 °C.



See photo:

- 1 Regular synthetic oil SAE 0W-40. The oil lost the fluidity;
- 2 XADO Atomic oil 0W-40 SL/CF Arctic -54. The oil kept its fluidity.

**XADO Atomic oil 0W-40 SL/CF Arctic -54 possesses an excellent pumpability and fluidity at critical low temperatures.**

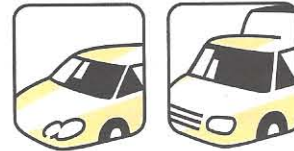


XADO Atomic Synthetic Motor Oil

# 0W-30 SL/CF



Synthetic easy-flowing ultra-modern motor oil with unique performances.  
Contains atomic revitalizant.  
Certified by the American Petroleum Institute.  
The base oil is made based on the complex synthetic components: polyalphaolefines and esters.



**0,5L**

Art. XA 22001

**1L**

Art. XA 22101

**4L**

Art. XA 22201

**5L**

Art. XA 22301

**10L**

Art. XA 22401

**20L**

Art. XA 22501

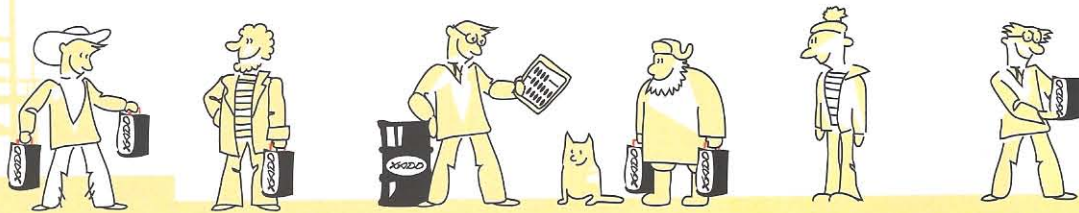
**60L**

Art. XA 22601

**200L**

Art. XA 22701

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.



# ADVANTAGES

XADO Atomic oil 0W-30 SL/CF is an easy-flowing synthetic motor oil of the ultra-class. It was created based on the complex of fully synthetic base oils of the highest quality: **esters and polyalphaolefines (PAO)** of leading European producers. It was alloyed with the currently existing additives package. It exceeds the requirements of the top American (API SL/CF) and European (ACEA A3/B3/B4) classifications, as well as specifications of the leading automobile manufacturers (BMW, MB, Porsche, and VW).

**Maximum power, acceleration, and perfect work are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.**

## ADDITIONAL ADVANTAGES

- Provides perfect performances of gasoline, gas, and diesel car engines in all the types of operation; indispensable for those, who prefer fast and dynamic driving.
- Ideal for modern multi-valve engines with turbo, including those with intermediate cooling of forced air.
- Particularly recommended for engines with a prolonged drain intervals (specifications MB 229.3, VW 503.01, and BMW Longlife).
- Best for engines of American cars, where easy-flowing oils are used (with a low high-temperature viscosity SAE 30).
- Due to its easy fluidity, it possesses excellent energy saving properties, and that is why it significantly decreases fuel consumption.
- Even at the lowest temperatures (below  $-35^{\circ}\text{C}$ ), it quickly gets to all the points of lubricating system and makes the engine start quite easy.

## CERTIFICATION

The oil was officially licensed by the **API, American Petroleum Institute**, as the one, which corresponds to the highest world standards both for gasoline engines of passenger cars (API SL) and diesel engines (API CF).



## BASE

XADO Atomic oil 0W-30 SL/CF is based on the complex of fully synthetic base oils of the highest quality: esters and polyalphaolefines (PAO) of leading European manufacturers.

## TEMPERATURE RANGE FOR APPLICATION



## SPECIFICATIONS

SAE 0W-30  
API SL/CF  
ACEA A3/B3/B4

## OEM LEVEL

VW 503.01  
VW 502.00/505.00  
MB 229.3, 229.1  
BMW Longlife  
Porsche

## TECHNICAL INFORMATION

Density at 20 °C, kg/l	0.854
Viscosity at 100 °C, mm <sup>2</sup> /s	11.8
Viscosity at 40 °C, mm <sup>2</sup> /s	67.0
Viscosity at -20 °C, mPa s	6,300
Viscosity index	174
Flash point, °C	220
Pour point, °C	<-42
Easy start temperature, °C	-35
Sulfated ash level, mass. %	1.5
Total base number, mgKOH/g	11.8

Note. Typical figures are presented.

## INFORMATION ABOUT MB 229.3 APPROVAL

A three-radial star in a circle — the Mercedes symbol — is the most recognizable automobile brand in the world. For its cars, the Mercedes-Benz recommends oils with MB approvals only.

The most universal one among them, the MB 229.3 approval, was introduced in 1997. The oils of this specification can be easily used in all the types of gasoline (line M100) and diesel (line OM 600) Mercedes-Benz engines for cars, equipped with an Active Service System (ASSYST).

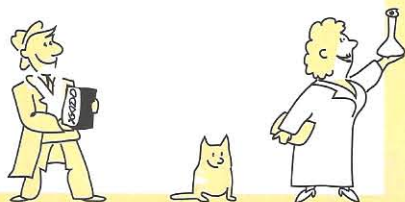
Oils should meet both common requirements, viz. easy-fluidity (viscosity SAE 0W-X, 5W-X), compatibility with all the types of compressor materials, used in engine manufacturing, etc., and special Mercedes requirements. That is checked by motor tests with the total duration of over 500 hours on four engines of various construction types.

During the process of testing, the fuel economy, capability to prevent sedimentation formation, cleanliness of internal surfaces of an engine, and stability of oil viscosity are checked.

Particular attention is paid to low-temperature checking. To do so, the start-up procedure is repeated many times with the temperature  $-40^{\circ}\text{C}$ .

In the result, the oils with MB 229.3 approval provide increased intervals of maintenance (up to 20,000 km for gasoline and 40,000 km for diesel engines), fuel economy (economy of over 1% of fuel comparing with the reference oil), perfect engine cleanness, and the easiest start at low temperature.

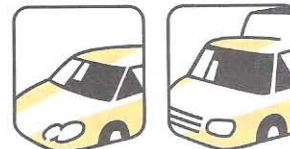
**XADO Atomic oil 0W-30 SL/CF meets the MB 229.3 approval.**





# 5W-30 SM/CF

Ultra-modern easy-flowing synthetic motor oil.  
Contains atomic revitalizant  
Certified by the American Petroleum Institute.  
It is formulated by the "mid SAPS" technology  
with special synthetic base oils.



**0,5L**

Art. XA 22005

**1L**

Art. XA 22105

**4L**

Art. XA 22205

**10L**

Art. XA 22405

**20L**

Art. XA 22505

**60L**

Art. XA 22605

**200L**

Art. XA 22705

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.

OILS

GREASES

REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY



# ADVANTAGES

XADO Atomic oil 5W-30 SM/CF is a multigrade easy-flowing synthetic motor oil of the ultra-class. It is based on the "mid SAPS" technology (mid level Sulfated Ash, Phosphorous, Sulfur) with special synthetic base oils and the up to date additives package of world leading manufacturers.

It can be used for gasoline, gas, and diesel engines in cars, minivans, and small trucks. It is ideal for modern forced engines, including multi-valve ones with turbo, and with an intermediate cooling system. It is particularly recommended for Euro-4 engines with premium requirements to the cleanness of the exhausts, equipped with a catalyst or ash filter (DPF).

**Reliability, smooth movements, and economy** are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.

## ADDITIONAL ADVANTAGES

- Satisfies the highest American specification to motor oils for gasoline engines of cars — API SM, officially licensed by the American Petroleum Institute (API).
- Produced based on the "mid SAPS" technology and provides increased resource of catalysts of exhaust and ash filters (DPF — Diesel Particulate Filter).
- Meets the requirements of the new European quality category: ACEA C3 (oils of the highest performance category with an average content of sulfate soot, sulfur, and phosphor).
- Recommended to be used in Euro-4 engines (MB 229.31 permit).
- Notable for the perfect performances and provides the best degree of protection and reliable work of engines.
- Long-life oil; it can be used in engines with prolonged drain intervals.

## CERTIFICATION

The oil was officially licensed by the **API, American Petroleum Institute**, as the one, which corresponds to the highest world standards both for gasoline engines of passenger cars (API SM) and diesel engines (API CF).



## BASE

It is created based on the special synthetic base oils and the up to date package of additives of the leading world producers.

## TEMPERATURE RANGE FOR APPLICATION



## SPECIFICATIONS

SAE 5W-30  
API SM/CF  
ACEA A3/B3/B4/C3

## OEM LEVEL

BMW Longlife-04  
MB 229.3, 229.31  
VW 502.00/505.00

## TECHNICAL INFORMATION

Density at 20 °C, kg/l	0.844
Viscosity at 100 °C, mm <sup>2</sup> /s	12.3
Viscosity at 40 °C, mm <sup>2</sup> /s	74.3
Viscosity at -30 °C, mPa s	6,280
Viscosity index	164
Flash point, °C	215
Pour point, °C	<-36
Easy start temperature, °C	-30
Sulfated ash level, mass. %	0.8
Total base number, mgKOH/g	7.6

Note. Typical figures are presented.

## SPECIFICATIONS API SM

The scientists constantly work on how to improve the oil quality. Less than four years after the introduction of the API SL technology, in November 2004, the highest American quality category for gasoline engines was introduced. The development of API SM oils was conducted to improve the environmental characteristics of engines, first of all. Besides, oils of the SM category have a stronger resistance to oxidation, better protection from sedimentation and wear, optimized low-temperature properties, prolonged drain intervals and keep up the stability of all these properties throughout the longer operational terms in comparison with the products of SL class.

API Service Symbol is evidence of the conformation of the oil to the highest quality requirements API SM.

## ENVIRONMENT

Using XADO Atomic oils, you take care of the environment. Due to the revitalizant the compression in the engine is kept at the optimal level — that ensures complete fuel combustion. Accordingly, the content of harmful substances (CO, CH, and NOx) in exhausts, when using the XADO Atomic oils, is significantly lower than when using other types of oil.



OILS

GREASES

REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY

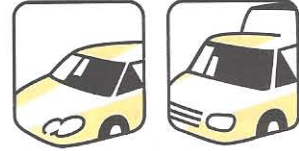




XADO Atomic Synthetic Motor Oil

**5W-40 SM/CF**

Ultra-modern synthetic motor oil of the API SM generation.  
Contains atomic revitalizant.

**0,5L**

Art. XA 22022

**1L**

Art. XA 22122

**5L**

Art. XA 22322

**10L**

Art. XA 22422

**20L**

Art. XA 22522

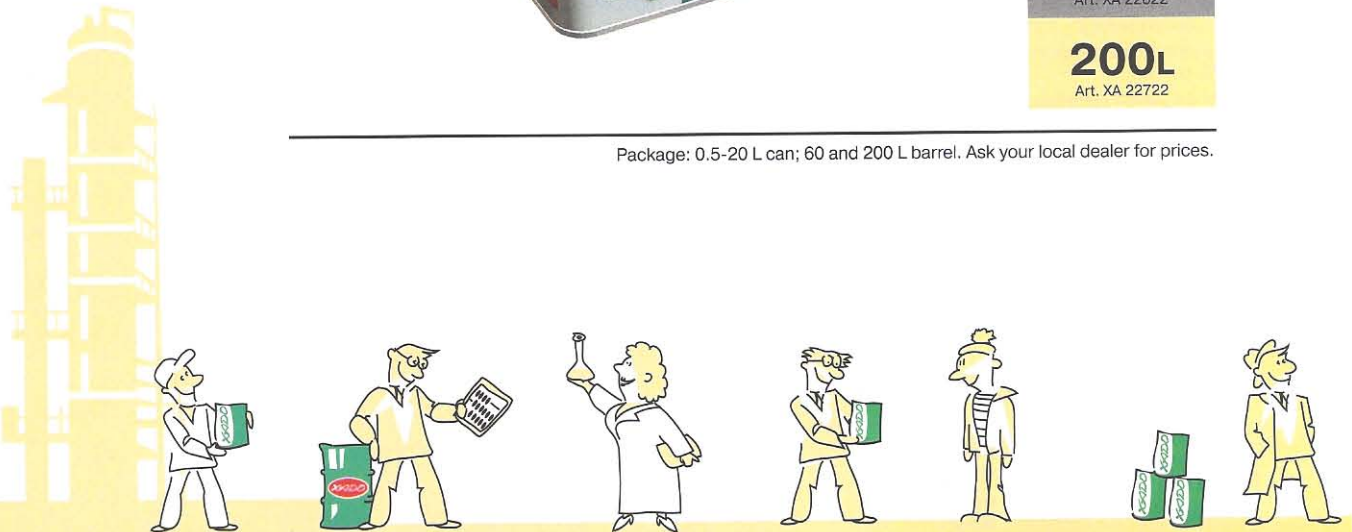
**60L**

Art. XA 22622

**200L**

Art. XA 22722

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.



# ADVANTAGES

XADO Atomic oil 5W-40 SM/CF is a multi-grade synthetic motor oil of the ultra class. It is formulated based on the "mid SAPS" technology (mid-level Sulfated Ash, Phosphorous, Sulfur) with special synthetic base oils and the newest additives package of leading world producers. It exceeds the requirements of the highest American (API SM/CF) and European (ACEA A3/B3/B4/C3) classifications, as well as specifications of the world leading automobile manufacturers (BMW, MB, and VW). It is ideal for the modern forced engines, including the multi-valve ones with turbo and intermediate cooling system. It is particularly recommended to Euro-4 engines with increased requirements to cleanness of exhausts; equipped with three-way catalytic converter (TWC), and ash filter (DPF — Diesel Particulate Filter).

**Reliability, unfailing performances, and high environmental characteristics** are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.

## ADDITIONAL ADVANTAGES

- Satisfies the top American specification to motor oils for gasoline engines of cars — API SM, officially licensed by the American Petroleum Institute (API).
- Produced based on the "mid SAPS" technology and provides an increased resource of catalysts of exhaust and ash filters.
- Meets the requirements of the new European quality category: ACEA C3 (oils of the highest performance category with an average content of sulfate soot, sulfur, and phosphor).
- Recommended to be used in Euro-4 engines (MB 229.31 permit).
- Notable for the perfect performance level and provides the best degree of protection and reliable work of engines.
- Long-life oil; it can be used in engines with prolonged drain intervals.
- Prolongs the service life of the device of the additional purification of the exhaust.
- Keeps the engine perfectly clean.



## CERTIFICATION

The oil was officially licensed by the **API, American Petroleum Institute**. It corresponds to the highest world standards both for gasoline (API SM) and diesel engines (API CF).



## BASE

It is created based on the special synthetic base oils and the up to date package of additives, using the "mid SAPS" technology (mid-level Sulfated Ash, Phosphorous, Sulfur).

## TEMPERATURE RANGE FOR APPLICATION



## SPECIFICATIONS

SAE 5W-40  
API SM/CF  
ACEA A3/B3/B4/C3

## OEM LEVEL

BMW Longlife-04  
MB 229.3, 229.31  
VW 502.00/505.00

## TECHNICAL INFORMATION

Density at 20 °C, kg/l	0.850
Viscosity at 100 °C, mm <sup>2</sup> /s	14.1
Viscosity at 40 °C, mm <sup>2</sup> /s	85.2
Viscosity at -30 °C, mPa s	6,310
Viscosity index	170
Flash point, °C	212
Pour point, °C	<-39
Sulfated ash level, mass. %	0.795
Total base number, mgKOH/g	7.6

Note. Typical figures are presented.

## SPECIFICATIONS ACEA C3

The European quality category for oils ACEA E3 was introduced in October 2004. The ACEA C3 oils are specially designed for modern highly stressed gasoline and diesel cars and small trucks with the increased requirements to environmental performance — Euro-4.

The oil development was conducted with the purpose to prolong the service life of the devices, which reduce the toxicity level of burnt gases (three-way catalysts of exhaust and ash filters). The resource of the devices on purification of exhausts directly depends on the chemical composition of oils. At natural waste oil consumption, the products of its combustion can reduce the efficiency of the devices. Sulfur and phosphor oxides, as well as ash cause the main harm. That is why the oils of the ACEA C3 have a strict content of sulfur and phosphor, as well as the indication of the sulfur ash level. This restriction required the introduction of new high-technological anti-wear, anti-oxide, and detergent additives. Regular oils usually contain additives with a high level of sulfur, phosphor, and a high indication of the sulfur ash level, what can be seen in the Table.

Oil characteristics	ACEA C3 requirements	XADO Atomic oil 5W-40 SM/CF	Usual synthetic oil (SAE 5W-40, API SJ/CF)
Phosphor content, %	0.07... 0.09	0.085	0.136
Sulfur content, %	≤ 0.3	0.284	0.379
Sulfated ash level, %	≤ 0.8	0.795	1.48
Modern requirements on the service life of the devices, which purify the exhausts, km	Not less than 100,000	Over 150,000	80,000 - 120,000*

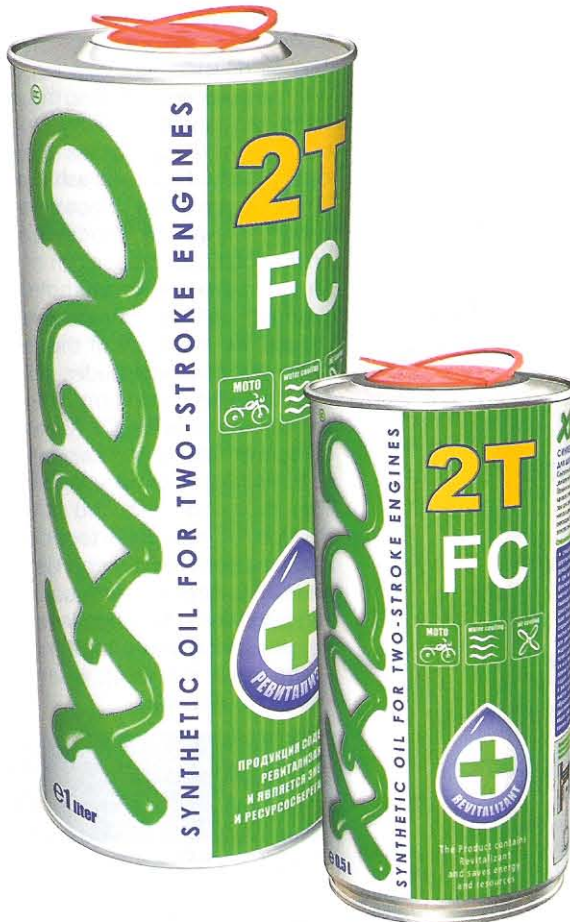
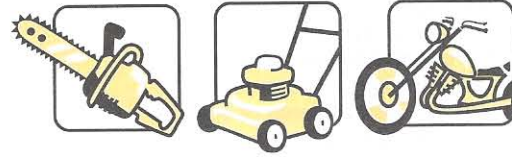
\*Statistics. The service life of exhaust catalysts depends on the construction peculiarities, and significantly on the quality of the fuel used.

**XADO Atomic oil 5W-40 SM/CF is made, using the up to date package of additives based on the "mid SAPS" technology; it meets the specification requirements ACEA C3 and provides high level of protection and lubrication of the engine parts, as well as prolongs the service life of the devices on exhaust purification.**



## 2T FC

Synthetic low-smoke motor oil for engines of motor-equipment.  
Contains atomic revitalizant.  
The base oil is formulated using special synthetic components.



**0,5L**

Art. XA 22016

**1L**

Art. XA 22116

**10L**

Art. XA 22416

**20L**

Art. XA 22516

**60L**

Art. XA 22616

**200L**

Art. XA 22716

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.

OILS

GREASES

REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY



# ADVANTAGES

XADO Atomic oil 2T FC is a synthetic modern oil for 2-stroke engines. It is created based on special synthetic base oils and modern package of low-ash additives.

It can be used in engines of **motorcycles, scooters, snowmobiles, lawn-mowers, chain-saws, gasoline power stations**, and other motor-equipment with air or water cooling system. It is ideal for high-loaded engines with air-cooling. It is particularly recommended for Japanese motorcycles with 2-stroke engines.

**Power, unfailing performances, and reliability** are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.

## ADDITIONAL ADVANTAGES

- Specially designed for 2-stroke engines which operate under heavy loads and at high temperatures.
- Effectively protects engine during short-term stressing regimes.
- Due to the "low-smoke" formula, it keeps the engine clean and prevents the formation of scale in the combustion chamber and exhaust windows.
- Completely universal. It can be used in engines with air or water-cooling system, for engines with separate lubricating system or combined lubrication together with fuel (ratio 1:50).
- Possesses an excellent fluidity and dissolubility; it can be easily mixed with fuel.
- Prevents corrosion of engine parts.
- Environment friendly; reduces the content of blue smoke in exhaust.

## STANDARDS

It exceeds the requirements of the highest international (ISO-LITER-EGC) and American (API TC) classifications, as well as specifications of the Japanese automobile organization on standardization (JASO FC).

## BASE



The base XADO Atomic oil 2T FC is made with special synthetic base oils obtained from the oil components from the North Sea shelf.

## TEMPERATURE RANGE FOR APPLICATION



## SPECIFICATIONS

API TC  
ISO-L-EGC  
JASO FC (Low Smoke)

## TECHNICAL INFORMATION

Density at 20 °C, kg/l	0.87
Viscosity at 100 °C, mm <sup>2</sup> /s	9.9
Viscosity at 40 °C, mm <sup>2</sup> /s	70.0
Viscosity index	123
Flash point, °C	85
Pour point, °C	<-21
Sulfate ash level, mass. %	0.1
Total base number, mgKOH/g	1.0
Color	green

Note. Typical figures are presented.

**The oil is specially colored green.**

## SPECIFICATIONS JASO FC

JASO is an abbreviation of the Japanese Automobile Standards Organization. This organization includes leading Japanese motor-equipment manufacturers.

The highest quality standard for oils for 2-stroke engines, JASO FC, was introduced in April 1994.

The development of oils JASO FC was introduced to decrease exhaust opacity and improve the cleanness of the engine parts. Particular attention is paid to oil lubricating properties, easiness of the engine work after start-up and cleanness of its parts.

Meeting the JASO FC specification requirements is checked during the series of four motor tests (engines Honda and Suzuki) and while physical and chemical research.

XADO Atomic oil 2T FC satisfies the JASO FC specification requirements and is recommended to be used without restrictions in 2-stroke engines with a separate or combined lubricating system of motorcycles, chain-saws, lawn-mowers, power stations and other motor-equipment, and provides their perfect performances.

## APPLICATION INSTRUCTIONS

For engines with combined lubricating systems, XADO Atomic oil 2T FC is used mixed with fuel, based on the ratio 1:50, unless otherwise is advised by the equipment manufacturer.

Mixing Table  
for XADO Atomic oil 2T FC with fuel

Ratio of fuel to oil	Amount of oil (ml) per 1 liter of fuel	Amount of oil (ml) per 10 liters of fuel
50:1	20	200
32:1	30	315
24:1	40	420
16:1	65	625

## Note

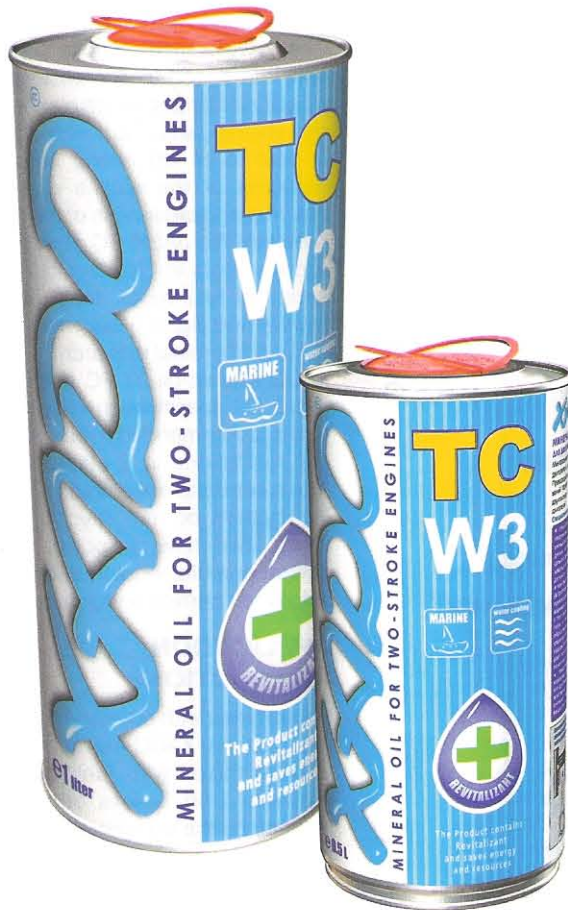
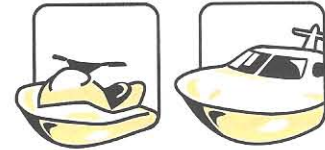
It is not recommended to use XADO Atomic oil 2T FC for outboard motor for boats and other water equipment where ash-free oil is recommended. In this case, use XADO Atomic oil TC W3.



XADO Atomic Motor Oil For 2-stroke Engines

## TC W3

Mineral oil for 2-stroke engines of water-equipment.  
Contains atomic revitalizant.  
The base oil is formulated with high-quality oil  
from the North Sea shelf.



**0,5L**

Art. XA 22017

**1L**

Art. XA 22117

**10L**

Art. XA 22417

**20L**

Art. XA 22517

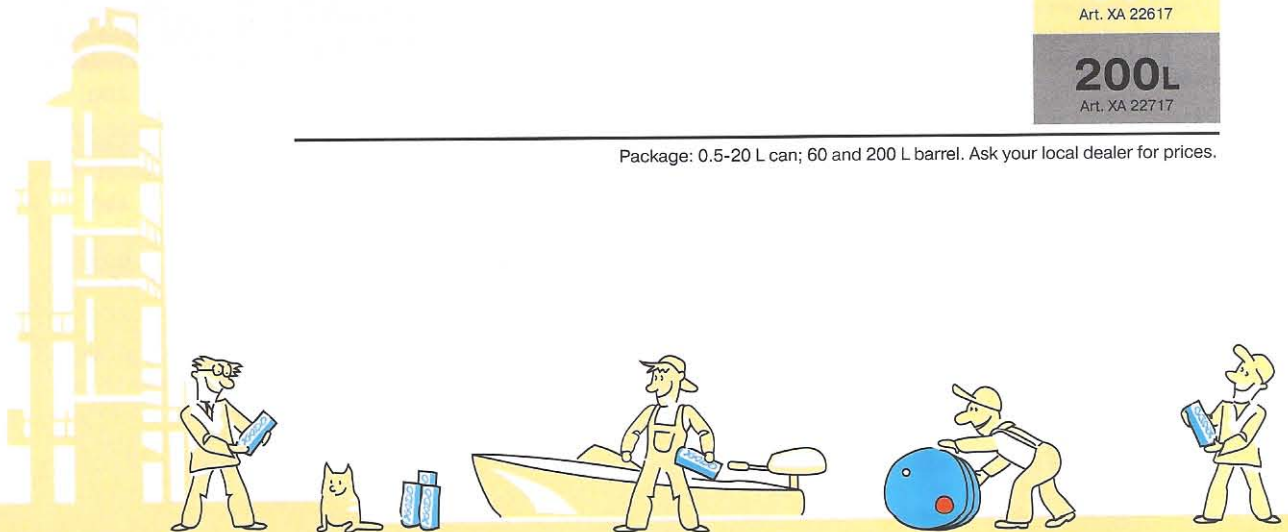
**60L**

Art. XA 22617

**200L**

Art. XA 22717

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.



# ADVANTAGES

XADO Atomic oil TC W3 is a modern ash-free mineral oil for 2-stroke engines. It is based on specially refined base oils from the North Sea shelf.

It is used in engines of **motorboats, water motorcycles** and other motor equipment with a water-cooling system. It is specially designed for high-loaded 2-stroke outboard boat engines.

**Power, reliability, and perfect operation** are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.

## ADDITIONAL ADVANTAGES

- Specially designed for modern 2-stroke outboard motors for boats with water-cooling systems.
- Universal in application. It can be used in engines with both separate lubricating system, and combined one (ratio up to 1:100).
- Possesses an excellent fluidity and dissolubility; it can be easily mixed with fuel.
- Keeps engine clean; prevents the formation of scale in the combustion chamber and exhaust windows.
- Due to the "ash-free" formula, it burns in full and does not leave any sediment on spark plugs.
- Prevents engine corrosion during the long-storage of an engine.
- Environmentally friendly, decreases the content of harmful substances in exhausts.

## STANDARDS

XADO Atomic oil TC W3 exceeds the requirements of the top American specification to oils for 2-stroke engines with a water-cooling system (NMMA TC-W3).

## BASE



XADO Atomic oil TC W3 is based on specially refined base oils from the North Sea shelf.

## TEMPERATURE RANGE FOR APPLICATION



## SPECIFICATIONS

NMMA TC-W3  
API TD

## OEM LEVEL

EVINRUDE  
JOHNSON  
MERCURY  
SUZUKI  
YAMAHA  
KAWASAKI, etc.

## TECHNICAL INFORMATION

Density at 20 °C, kg/l	0.873
Viscosity at 100 °C, mm <sup>2</sup> /s	6.9
Viscosity at 40 °C, mm <sup>2</sup> /s	44.0
Viscosity index	121
Flash point, °C	112
Pour point, °C	<-18
Sulfated ash level, mass. %	0
Color	blue

Note. Typical figures are presented.

**The oil is specially colored blue.**

## SPECIFICATIONS NMMA TC-W3

NMMA stands for the National Marine Manufacturers Association. At the present time, the highest specification to motor oils for 2-stroke outboard motors NMMA TC-W3, introduced in 1993, is widely used. The oils conformity to the NMMA TC-W3 is checked by a strict program using five motor tests (engines Yamaha, OMC, and Mercury). In the physical and chemical research, the easiness of oil mixing with fuel and its fluidity at low temperatures are evaluated first of all.

XADO Atomic oil TC W3 meets the NMMA TC-W3 specification requirements and is recommended for use without restrictions for all types of 2-stroke engines with a separate or combined lubricating system of motor boats, water motorcycles and other equipment with water cooling and provides their perfect performances.

## APPLICATION INFORMATION

For engines with a combined lubricating system, XADO Atomic oil TC W3 is used mixed with fuel, ratio 1:100, unless otherwise is advised by the equipment manufacturer.

*Mixing table for XADO Atomic oil TC W3 with fuel*

Ratio of fuel to oil	Amount of oil (ml) per 1 liter of fuel	Amount of oil (ml) per 10 liters of fuel
100:1	10	100
50:1	20	200
32:1	30	315
24:1	40	420
16:1	65	625

## Note

It is not advised to use XADO Atomic oil TC W3 for ground-based motor equipment (motorcycles, chainsaws, etc.), where it is advised to use low-ash oil. In this case, use XADO Atomic oil 2T FC.



XADO Atomic Transmission Oil For Mechanical Transmissions

# 75W-90 GL 3/4/5



Synthetic universal oil of the highest class for mechanical transmissions. Contains atomic revitalizant. The base oil is formulated based on the synthetic polyalphaolefine components.



**0,5L**

Art. XA 22018

**1L**

Art. XA 22118

**10L**

Art. XA 22418

**20L**

Art. XA 22518

**60L**

Art. XA 22618

**200L**

Art. XA 22718

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.



# ADVANTAGES

XADO Atomic oil 75W-90 GL 3/4/5 is a synthetic super-universal multi-grade oil of the extra-class for all the assemblies of mechanical transmissions (gear box, transfer case, and differential) of cars and trucks. It is developed based on the **synthetic polyalphaolefine base oil with a super high viscosity index**. It contains a unique package of additives with a special extreme pressure (EP) anti-burr complex. It exceeds the level of the highest American and European requirements to oils for mechanical transmissions API GL 3/4/5.

**Smooth running, unfailing performances, and reliability are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.**

## ADDITIONAL ADVANTAGES

- Recommended for all transmission mechanisms of modern cars, which work on easy-flowing synthetic oils.
- Provides comfortable switching of gears due to excellent synchronization of working pinions.
- Effective for high-loaded hypoid gears and Limited Slip Differential.
- Possesses particularly stable properties (resistant to aging and oxidation); provides maximum allowed drain intervals and is used in mechanisms with single oil filling for the total period of operation.
- Perfect oil fluidity enables easy start and unhampered work of the transmission at significantly low temperatures (below  $-40^{\circ}\text{C}$ ).

## STANDARDS

XADO Atomic oil 75W-90 GL 3/4/5 exceeds the level of the premium American (API GL 3/4/5, MIL) and European requirements to transmission oils, as well as specifications of the car manufacturers (MAN, Volvo, etc.) and transmission assemblies (ZF).

## BASE



The base XADO Atomic oil 75W-90 GL 3/4/5 with super-high viscosity index (VI=195) is made with synthetic hydrocarbon of polyalphaolefines obtained from the oil components from the North Sea shelf.

## TEMPERATURE RANGE FOR APPLICATION



## SPECIFICATIONS

SAE 75W-90  
API GL 3/4/5  
API MT-1  
MIL-PRF-2105E  
MIL-L2105 B/C/D/E

## OEM LEVEL

MAN 341 SL, 342 SL, 3343 SL  
Volvo 97310  
Scania STO 1:0  
DAF ZF TE-ML 02  
ZF TE-ML 01, 02, 05, 07, 08

## TECHNICAL INFORMATION

Density at  $20^{\circ}\text{C}$ , kg/l .....0.884  
Viscosity at  $100^{\circ}\text{C}$ , mm<sup>2</sup>/s .....15.3  
Viscosity at  $40^{\circ}\text{C}$ , mm<sup>2</sup>/s .....83.6  
Viscosity index .....195  
Flash point,  $^{\circ}\text{C}$  .....207  
Pour point,  $^{\circ}\text{C}$  .....<-45

Note. Typical figures are presented.

## SPECIFICATIONS SAE J306

Currently active specification SAE J306 for oil viscosity for mechanical transmissions was introduced in July 1998.

The development made by the Society of Automotive Engineers (SAE) was the most popular and recognized all over the world. It is used by all the automobile manufacturers when recommending oils for mechanical transmissions, driving axles and transfer boxes.

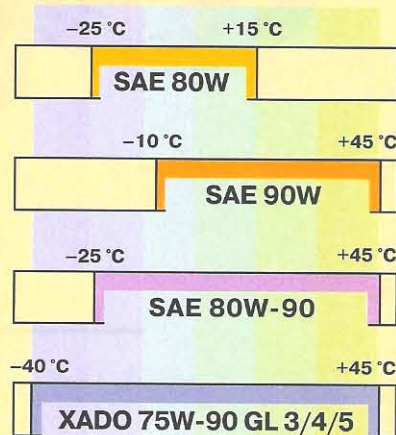
The SAE J306 specification envisages testing of viscous properties of oils under conditions determined during operation of transmission assemblies, viz. oil fluidity at negative temperature, carrying capacity of the oil film at high working temperatures; stability of oil viscosity at prolonged shear deformation (in transmission operation, it is a condition of fast gliding of pinions under load).

The SAE J306 specification determines the requirements to the viscosity of "winter" (SAE 70W, 75W, 80W, and 85W) and "summer" (SAE 80, 85, 90, 140, and 250) transmission oils. The oils which can simultaneously satisfy "winter" and "summer" oils are called multigrade oils. Such oils are notable for optimal viscous properties and a wide temperature range of application.

The transmission XADO Atomic oil is multigrade and in compliance with the SAE J306 specification, its viscosity is 75W-90 and 80W-90.

## COMPARISON TESTS

XADO Atomic oil 75W-90 GL 3/4/5 (temperature range for application)



XADO Atomic oil 75W-90 GL 3/4/5 has the widest temperature range for application (from  $-40$  to  $+45^{\circ}\text{C}$ ).





XADO Atomic Transmission Oil For Mechanical Transmissions

## 80W-90 GL 3/4/5



Mineral universal top class oil for mechanical transmissions.  
Contains atomic revitalizant.  
The base oil is made of high-quality oil  
from the North Sea shelf.



**0,5L**

Art. XA 22019

**1L**

Art. XA 22119

**10L**

Art. XA 22419

**20L**

Art. XA 22519

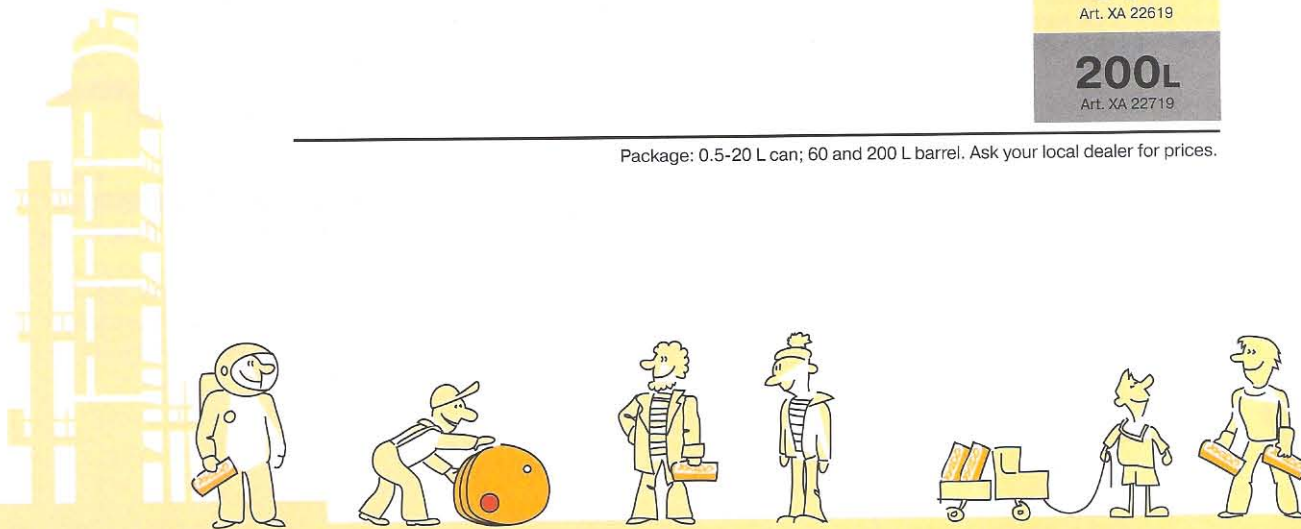
**60L**

Art. XA 22619

**200L**

Art. XA 22719

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.



# ADVANTAGES

XADO Atomic oil 80W-90 GL 3/4/5 is the new super universal multi-grade oil for assemblies of mechanical transmissions of cars and trucks (gear boxes, transfer cases, axles, and steering gears).

It is made based on the special refined mineral oil with a high-pressure coefficient of viscosity. It is alloyed with a package of additives of a new generation with unique anti-burr characteristics — Extreme Pressure (EP).

It fully satisfies and exceeds the premium American and European requirements to oils for mechanical transmissions for API GL 3/4/5.

**Reliability, durability, and absence of noise** are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.

## ADDITIONAL ADVANTAGES

- Universal in application for all the assemblies of mechanical transmissions of cars and trucks. It improves the work of the transmission synchro-mesh and increases the accuracy of gear engaging. It is particularly efficient for highly stressed hypoid gearing and Limited Slip Differential.
- Owing to the content of the atomic revitalizant, it compensates the natural wear-and-tear of all types of toothings and coupling made of ferrous and non-ferrous metals, and expands their resources.
- Notable for the high level of stability of the performances at long-term work; it is used in transmission mechanisms with single filling for the total period of operation.
- Resistant to oxidation and aging at the highest temperatures (over +150 °C) and at extreme loads (over 3,000 MPa).
- Reduces fuel consumption, in particular, for all-wheel drive cars.
- Protects transmission assemblies in case of oil leak.

## STANDARDS

XADO Atomic oil 80W-90 GL 3/4/5 exceeds the requirements of the top American and European specifications to transmission oils for cars and trucks.

## BASE



The base oil for XADO Atomic oil 80W-90 GL 3/4/5 is made of special refined hydrocarbons of the oil from the North Sea shelf.

## TEMPERATURE RANGE FOR APPLICATION



## SPECIFICATIONS

SAE 80W-90  
API GL 3/4/5  
API MT-1  
MIL-PRF-2105E  
MIL-L2105 B/C/D/E

## OEM LEVEL

MAN 341, 342, 334ML  
Volvo 97310  
Scania STO 1:0, 2:0  
ZF TE-ML 01, 02, 05, 07, 08

## TECHNICAL INFORMATION

Density at 20 °C, kg/l .....0.898  
Viscosity at 100 °C, mm<sup>2</sup>/s .....14.8  
Viscosity at 40 °C, mm<sup>2</sup>/s .....142.5  
Viscosity index .....104  
Flash point, °C .....205  
Pour point, °C .....<-30

Note. Typical figures are presented.

## SPECIFICATIONS

### API GL-3, GL-4, GL-5

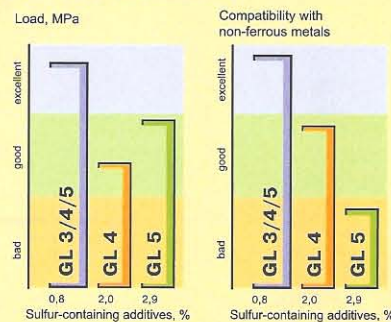
Based on the classification of the American Petroleum Institute (API), oils for mechanical car transmissions are classified based on the work conditions and content of additives.

Usually, sulfur-containing components constitute a half of content of additives for oils for highly loaded transmissions. They increase the maximum possible stress in the contact and effectively protect the surfaces of pinions from burrs. However, it is not recommended to use such oils in a transmission, as sulfur has a negative effect onto transmission parts made from non-ferrous metals (e.g. synchro-nizing devices).

	Transmission mechanism	Maximum stress in contact, MPa	Percentage of special additives, %
API GL-3	Normally loaded transmission	2,500	2.7
API GL-4	High-loaded transmission low-loaded hypoid gearing	3,000	4.0
API GL-5	High-loaded hypoid gearing	Over 3,000	6.5

## COMPARISON CHARACTERISTICS

XADO Atomic oil 80W-90 GL 3/4/5 (universal application)



- Regular oil for transmission (SAE 80W GL 4)
- Regular oil for axle (SAE 80W-90 GL 5)
- XADO Atomic Oil 80W-90 GL 3/4/5

XADO Atomic oil 80W-90 GL 3/4/5 can endure super stresses; it contains minimum amount of sulfur and is universal for all the units of a mechanical transmission.



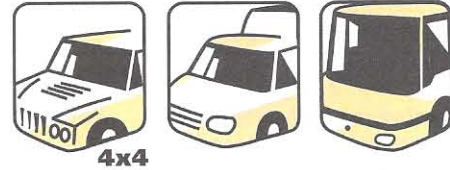
XADO Atomic Transmission Oil For Mechanical Transmissions

# 85W-140 GL 5 LSD



High-viscosity mineral oil of the highest category for assemblies of the mechanical transmissions. Contains atomic revitalizant.

The base oil is made of high-quality oil from the North Sea shelf.



**0,5L**

Art. XA 22021

**1L**

Art. XA 22121

**10L**

Art. XA 22421

**20L**

Art. XA 22521

**60L**

Art. XA 22621

**200L**

Art. XA 22721

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.



# ADVANTAGES

XADO Atomic oil 85W-140 GL 5 LSD is the best mineral transmission oil for today with Limited Slip Differential. It is notable for the highest level of protection of main gears and differential gears of all the types of mechanical transmission of cars and trucks.

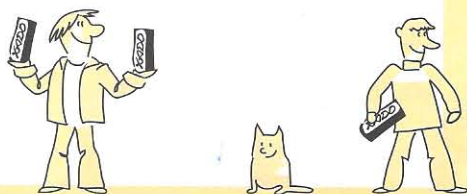
It provides smooth turning-on of cone and disk clutches of Limited Slip Differentials and prevents the "stick-slip". It possesses unique anti-wear properties stable under extreme conditions. It also has particularly stable properties (resistant to aging and oxidation) and can be used in mechanisms with single-stage filling for the total operating period. It keeps mechanisms of the transmission clean and prevents corrosion.

It can be applied all-year long in main gears of all types including hypoid ones, with cone and disk differential of increased friction; in reducers and transfer boxes of cars and trucks, and other equipment where it is recommended to use API GL 5 and/or MIL-L2105D oils.

**Smooth movement, unfailing performance, and durability** are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.

## ADDITIONAL ADVANTAGES

- Restores natural wear of interacting parts. It is particularly efficient for high-loaded hypoid gears and limited slip differentials.
- Increases reliability and prolongs the service life of the transmission units.
- Damps extreme stresses.
- Protects transmissions from wear in case of oil leak.
- Reduces noise and vibration.



## STANDARDS

XADO Atomic oil 85W-140 GL 5 LSD exceeds the highest level of API GL 5 LS requirements to oils for high-loaded hypoid gearing with increased friction differential.

## BASE



XADO Atomic oil 85W-140 GL 5 LSD is based on the special high-viscous base mineral oils and a package of special anti-wear and anti-burr additives.

## TEMPERATURE RANGE FOR APPLICATION

XADO Atomic oil 85W-140 GL 5 LSD can be used all-year long in compliance with the recommendations of automobile manufacturer.

## SPECIFICATIONS

SAE 85W-140  
API GL 5 LS  
MIL-L2105 D

## TECHNICAL INFORMATION

Density at 20 °C, kg/l .....0.907  
Viscosity at 100 °C, mm<sup>2</sup>/s .....26.5  
Viscosity at 40 °C, mm<sup>2</sup>/s .....363  
Viscosity at -12 °C, mPa s .....140,000  
Viscosity index .....97  
Flash point, °C .....241  
Pour point, °C .....<-15

Note. Typical figures are presented.



## SPECIAL INFORMATION

About Oils for Limited Slip Differential (LSD).

Many car owners with a usual (free) differential gear have experienced in a situation when one driving wheel is caught on ice and the other is still on the asphalt, and it is difficult to start moving. The wheel on ice will rotate and slip, whereas the other one will be completely immobile. Limited slip differential vehicles do not have such a problem, as LSD inhibits wheel slippage. It is easier to start moving and drive on ice, bad roads, dirt, or snow.

There is a cone or disk friction clutch in the construction of limited slip differentials. Its particularly smooth switching on is provided by the high-viscosity oils (SAE 140) with a special package of additives. Marking of such oils indicates the possibility to use them in limited slip differentials.

**XADO Atomic oil 85W-140 GL 5 LSD is well fitted for limited slip differentials.**

## RECOMMENDATIONS

XADO 85W-140 GL 5 LSD is recommended to be used in limited slip differentials of the following vehicles:

Brand	Vehicle model	Production year
BMW	All vehicles with a limited slip differential	
FIAT	Panda 4x4 (965,999 cc)	1984-92
	Trooper 2.6i 4WD	1987-92
ISUZU	Trooper 2.8 Diesel Turbo 4WD	1988-92
	Trooper 3.1 Diesel Turbo (960) 4WD	1992-
	Daily 35.10, 45.10, 49.10 (2445 cc)	1985-90
IVECO	Daily 35.8, 35.10, 35.12 (2445 cc)	1993-
	Daily 40.12, 49.12, 59.12	1991-
	Daily 45.10, 49.10 (2499 cc)	1990-
	Traffic T800, T1000, T1200 1.4	1986-89
	Traffic T800, T1000, T1200 1.6	1986-89
RENAULT	Traffic P 1400 1.7	1989-94
	Traffic P 1400 2.0	1989-94
	Traffic P800D, P1000D, P1200D 2.1	1986-89
	Traffic P 1400D 2.1	1989-94

OILS

GREASES

REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY



# ATF III

Mineral oil of the highest class for automatic transmissions.  
Contains atomic revitalizant.  
The base oil is made from the high-quality oil  
from the North Sea shelf.



**0,5L**

Art. XA 22020

**1L**

Art. XA 22120

**10L**

Art. XA 22420

**20L**

Art. XA 22520

**60L**

Art. XA 22620

**200L**

Art. XA 22720

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.



# ADVANTAGES

XADO Atomic oil ATF III is the best of today's mineral oils for automatic transmissions. It is specially designed for automatic transmissions of cars produced after 1995; it is also recommended for vehicles manufactured earlier. It is used in hydraulic systems of the wheel booster and mechanical transmissions. It is made based on a **narrow special fraction of the refined mineral base oil** with a high-viscosity index and a special package of additives. It exceeds the requirements of the General Motors, Ford, and ZF to oils for automatic transmissions.

**Durability, comfortable conditions, and smoothness of speed control** are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.

## ADDITIONAL ADVANTAGES

- Boosts reliability of work of a mechanical transmission. Due to the atomic revitalizant, it protects bearings, spool-and-sleeves, clutch parts, and pinions from wear and prolongs the life of a transmission.
- Improves work of friction clutches of automatic transmissions and provides smooth gear switching.
- Guarantees a full stability of friction properties (like new oil) at prolonged drain interval — over 90,000 km.
- Due to its high fluidity, it provides quick return to working conditions; it has a low pour point (below  $-42^{\circ}\text{C}$ ).
- Damps extreme stresses.
- Protects transmission elements and control-gears from corrosion even during long downtimes.

## VISCOSITY

XADO Atomic oil ATF III has a very low temperature viscosity (which can be compared with the viscosity of synthetic oil), what provides an easy and smooth speed control at low temperatures (below  $-30^{\circ}\text{C}$ ). A high viscosity index ( $\text{VI} = 197$ ) guarantees the stability of the torque transfer in all the engine operating modes.

## BASE



The base oil for XADO Atomic oil ATF III is made from a narrow special fraction of refined hydrocarbons of oil from the North Sea shelf.

## TEMPERATURE RANGE FOR APPLICATION



## SPECIFICATIONS

GM Dexron III  
Ford Mercon

## OEM LEVEL

GM Dexron III /II-E /II-D /Type A  
Ford Mercon  
MB 236.1  
ZF TE-ML 11, 14  
Voith  
Allison C-4  
Caterpillar TO-2

## TECHNICAL INFORMATION

Density at  $20^{\circ}\text{C}$ ,  $\text{kg/l}$  .....0.864  
Viscosity at  $100^{\circ}\text{C}$ ,  $\text{mm}^2/\text{s}$  .....7.7  
Viscosity at  $40^{\circ}\text{C}$ ,  $\text{mm}^2/\text{s}$  .....35.2  
Viscosity at  $-35^{\circ}\text{C}$ ,  $\text{mPa s}$  .....< 20,000  
Viscosity index .....197  
Flash point,  $^{\circ}\text{C}$  .....202  
Pour point,  $^{\circ}\text{C}$  .....<  $-42$   
*Note.* Typical figures are presented.

XADO Atomic oil ATF III is specially colored red. It is compatible with oils for automatic transmissions (Dexron and Mercon). It is not recommended for automatic transmissions of such vehicles as Ford, Mazda, Toyota and Volvo, production year before 1980 where the ATF Type F(G) is used.

## SPECIFICATIONS

### Dexron III

Dexron III is the most known today's quality category of oils for automatic transmissions introduced in 1994.

The development of Dexron III oils was made for automatic transmissions for cars from 1995 to improve the speed control accuracy and smoothness of transmission at low temperatures.

**The application of oil with the Dexron III specification gives the following advantages:**

- More comfortable automatic transmission operating, especially at low temperatures;
- Smooth operating at start;
- Ideal clean transmission;
- Improvement of the accuracy of control devices operating;
- Increased service life and resources due to increased anti-wear properties;
- Resistance to high working temperatures and loaded driving regimes.

## TEST RESULTS

XADO Atomic oil ATF III (comfortable speed control).

**XADO Atomic oil ATF III provides an ideal smooth operating of automatic transmission. Due to the perfect friction properties and the action of the atomic revitalizant, pushes, jerks and flicks are damped, automatic transmission operating provides the highest level of comfort.**





# ATF VI

Semi-synthetic fluid for automatic transmissions.  
Contains atomic revitalizant.  
Possesses the most effective performance level.



**0,5L**

Art. XA 22024

**1L**

Art. XA 22124

**10L**

Art. XA 22424

**20L**

Art. XA 22524

**60L**

Art. XA 22624

**200L**

Art. XA 22724

Package: 0.5-20 L can; 60 and 200 L barrel. Ask your local dealer for prices.



# ADVANTAGES

**XADO Atomic ATF VI is the best fluid for all types of automatic transmissions including six-speed automatic transmissions. The fluid meets the latest requirements of General Motors for operating fluids for automatic transmissions. Special additive package and revitalizant protect bearings, spool-and-sleeves, torque converter clutch and gears extending transmission life span.**

**Extended life span, comfort, smooth speed-control are always on a high level due to the patented formula of the atomic revitalizant, which is a part of the composition of the XADO Atomic oil. The use of the revitalizant is acknowledged to be a groundbreaking direction in saving energy and resources and is confirmed by certified tests in 35 countries of the world.**

## ADDITIONAL ADVANTAGES

- Improves operation of transmission friction clutches, ensures smooth speed-control.
- Increases operating reliability and extends service life of control gears.
- Improves accuracy of transmission and hydraulics operation, ensuring comfortable driving.
- Transfers engine torque effectively.
- High fluidity at low temperatures (pour point lower than  $-54^{\circ}\text{C}$ ), quick transmission start.
- Protects transmission parts from corrosion, keeps transmission clean, prevents foam formation, keeps elasticity of seals.
- Reduces fuel consumption due to the decreased high-temperature viscosity.
- Damps extreme loads.
- Reduces noise and vibration.

## VISCOSITY

XADO Atomic ATF VI has low viscosity and high fluidity at low temperatures (does not thicken at up to  $-54^{\circ}\text{C}$ ). It ensures quick start of transmission operation after car standstill; Due to lower high-temperature viscosity ( $6\text{ mm}^2/\text{sec}$  at  $100^{\circ}\text{C}$ ) hydrodynamic losses in automatic transmissions are minimized and fuel consumption during car operation is reduced.

## BASE

The base for XADO Atomic ATF VI is formulated on basis of high-purity (purity 99,9%) base oils by technology of hydrocracking synthesis and special additive package.

## TEMPERATURE RANGE FOR APPLICATION



## SPECIFICATIONS

### GM Dexron VI (GM# 10060)

### TECHNICAL INFORMATION

Density at $20^{\circ}\text{C}$ , kg/l	0.846
Viscosity at $100^{\circ}\text{C}$ , $\text{mm}^2/\text{s}$	6.0
Viscosity at $40^{\circ}\text{C}$ , $\text{mm}^2/\text{s}$	30.0
Viscosity at $-40^{\circ}\text{C}$ , mPa s	12,030
Viscosity index	151
Flash point, $^{\circ}\text{C}$	206
Pour point, $^{\circ}\text{C}$	$<-54$
Total base number, mg KOH/g	2.0
Sulphated ash, wt%	0.02

*Note.* Typical figures are presented.

XADO Atomic ATF VI is specially colored red.

Compatible with the fluids for automatic transmissions (Dexron, Mercon).

XADO Atomic ATF VI is not recommended for application in automatic transmissions of passenger cars Ford, Mazda, Toyota and Volvo produced before 1980 where application of ATF Type F(G) is specified.

XADO Atomic ATF VI can be used in hydraulic systems of steering booster, mechanical transmissions according to automobile manufacturers' recommendations.

## SPECIFICATION Dexron VI

Dexron VI is the latest category of the oil quality for automatic transmissions introduced in 2005.

Dexron VI was specially developed for six-speed automatic transmissions of 2006 GM vehicles.

The specification was elaborated by close cooperation of automatic transmission manufacturer General Motors, the leading Canadian producer of base oils Petro Canada and manufacturer of high-quality additives for Afton Chemical oils.

### Benefits of application of oil with DEXRON VI specification:

- overextended drain intervals (up to 400,000 km) in six-speed GM automatic transmissions;
- prolonged service life in the units where fluids of previous specifications (DEXRON III,II) are recommended;
- additional fuel economy due to the lower high-temperature viscosity;
- extended life span of transmission units;
- improved torque transfer;
- perfect antioxidant stability and wear protection;
- quick and smooth speed-control with optimal antifriction properties under normal and low-temperature operating conditions.

XADO Atomic ATF VI meets specifications Dexron VI, exceeds the requirements of other specifications and it is the best fluid for automatic transmissions.

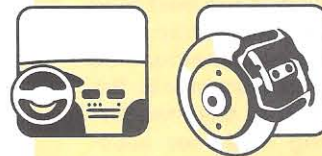




XADO Atomic Hydraulic Fluid

# LHM

High-quality mineral fluid for automobile hydraulic systems.  
Contains atomic revitalizant.



Special hydraulic fluid on the mineral base for hydropneumatic suspensions of Citroën cars. Applied for hydraulic systems of other models of passenger cars and trucks with steering wheel booster or integrated hydraulic systems (hydraulic power steering — suspension — servo-drive of brake system and transmission) where the manufacturer recommends to use fluids of LHM type.

- Has excellent lubricating properties and ensures accurate operation of hydraulic system units during their operating period.
- Due to the low pour point ( $-60\text{ }^{\circ}\text{C}$ ) the fluid guarantees reliable hydraulic system operating even at very low temperatures.
- Does not have corrosive effect on metals used in hydraulic systems providing longer service resource.
- Compensates current wear of units and parts of hydraulic pumps and drives.
- Prevents internal leakage of the fluid.

## SPECIFICATIONS AND OEM LEVEL

ISO 7308 PSA

Citroën PSA-B-71 2710

AFNOR NF R 12-640

## TECHNICAL INFORMATION

Density at $20\text{ }^{\circ}\text{C}$ , kg/l	0.833
Viscosity at $100\text{ }^{\circ}\text{C}$ , $\text{mm}^2/\text{s}$	6.2
Viscosity at $40\text{ }^{\circ}\text{C}$ , $\text{mm}^2/\text{s}$	18.2
Viscosity at $-40\text{ }^{\circ}\text{C}$ , mPa s	<1,200
Viscosity index	>300
Flash point, $^{\circ}\text{C}$	>125
Pour point, $^{\circ}\text{C}$	<-60
Color	green

Note. Typical figures are presented.

### Note

- Specially colored green.
- Can be mixed in any proportion and is compatible with any other mineral hydraulic fluid of LHM type.
- It is not recommended to mix it with other types of fluids.
- It is not admissible to use the fluid in brake system where auto manufacturer specifies the application of fluids DOT-3, DOT-4 (it is recommended to apply XADO DOT-4).
- Fully compatible with all types of materials and seals applied in hydraulic systems of modern cars.

**0,5L**

Art. XA 22026

**1L**

Art. XA 22126

**10L**

Art. XA 22426

**20L**

Art. XA 22526

Package: 0.5–20 L can.  
Ask your local dealer for prices.





# CHF

Synthetic fluid of the latest generation for hydraulic systems.  
Contains atomic revitalizant.



The best fluid for hydraulic boosters and integrated (central) hydraulic system including servo-drive of steering control, clearance control system, servo-drive of brake system and other units. Applied to the steering system and central hydraulic systems of modern cars Audi, VW, Volvo, MB, Alfa Romeo, BMW, Opel, etc.

- Has excellent performance level and is applied for a single charge of hydraulic car system for the whole service life.
- Due to the unique viscosity properties the fluid ensures reliable operation of hydraulic system with a wide temperature range of application (-45...+130°C), in any climate conditions and operating mode.
- Provides excellent anticorrosive protection of pumps and drives, pipes and dispensers.
- Compensates current wear of units and parts of hydraulic pumps and drives.
- Prevents internal leakage of the fluid.

### TECHNICAL INFORMATION

Density at 20 °C, kg/l	0.830
Viscosity at 100 °C, mm <sup>2</sup> /s	5.98
Viscosity at 40 °C, mm <sup>2</sup> /s	18.5
Viscosity at -40 °C, mPa s	<1,400
Viscosity index	>300
Flash point, °C	>150
Pour point, °C	<-50
Color	green

Note. Typical figures are presented.

### Note

- Specially colored green.
- Can be mixed with all synthetic fluids of CHF type, e.g. Pentosin CHF.
- It is not recommended to mix it with other types of fluids. It is not admissible to use the fluid in brake system where auto manufacturer specifies the application of fluids DOT-3, DOT-4 (it is recommended to apply XADO DOT-4).
- Fully compatible with all types of materials and seals applied in hydraulic systems of modern cars.



### SPECIFICATIONS AND OEM LEVEL

DIN 51524 part 2  
ISO 7308  
Audi/VW: VW TL 521 46 (G00200)  
Skoda/Seat: VW TL 521 46  
BMW 81 22 9 407 758  
Deutz 2940929  
MAN3623/93  
Nissan  
Peugeot B 71 2710  
Fendt X902.011.622  
Porsche  
Saab  
Rolls Royce  
Volvo STD 1273.36  
Mercedes Benz sheet 345  
Opel B0400070

0,5L  
Art. XA 22025

1L  
Art. XA 22125

10L  
Art. XA 22425

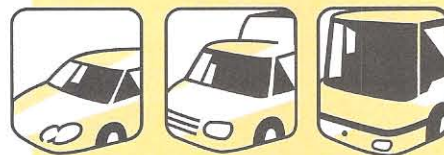
20L  
Art. XA 22525

Package: 0.5-20 L can.  
Ask your local dealer for prices.



# REFRIGERATION OIL 100

Synthetic oil for automobile air conditioners.  
Contains atomic revitalizant.  
It is based on the esters and complex of special additives.  
It meets ISO-VG 100 requirements.



XADO Refrigeration Oil 100 possesses an excellent lubrication property, increased adherence to the parts surfaces, chemical hydrolytic stability. It is specially designed for automobile conditioners operating on refrigerant R-134a (cars produced since 1993). It is used in domestic and industrial conditioners. It can be easily mixed with fluorocarbon (HFC) refrigerants R-134a (404a, 407c, etc.). It is compatible with all the types of materials and can be mixed with all the types of oil used in the conditioning systems of vehicles.

## APPLICATION AND DOSAGE

Use special service equipment to fill a conditioner with oil (joined unit to work with refrigerants and a special filling cylinder), follow manufacturer's instructions.

The amount of oil for filling the conditioner is determined in the technical documentation for a car, and usually equals 130–300 g. As a rule, it is not more than 1/4 of the mass of the filled refrigerant.

For example:

Vehicle	Oil amount, g	Quantity R-134a, g
Skoda Fabia 1.4; 1999-	below 135	550±25
Skoda Octavia 1.8T; 1996-	below 190	750±50
Opel Vectra C 2.2; 2003-	Up to 185	730

XADO Refrigeration Oil 100 is fully compatible with polyalkylene-glycol oils (PAG), which are traditionally used in automobile air conditioners with R-134a and exceeds their operational properties.

## TECHNICAL INFORMATION

Density at 15 °C, kg/l .....1.064  
Viscosity at 100 °C, mm<sup>2</sup>/s .....13.0  
Viscosity at 40 °C, mm<sup>2</sup>/s .....100.0  
Viscosity index .....127  
Flash point, °C .....260  
Pour point, °C .....<-40  
Water content, ppm .....<50  
Total acid number, mgKOH/g .....0.0

Note. Typical figures are presented.

**0,5L**

Art. XA 62203

**1L**

Art. XA 62003

**10L**

Art. XA 62403

**20L**

Art. XA 62503

**60L**

Art. XA 62603

**200L**

Art. XA 62703

Package: 0.5-20 L can; 60 and 200 L barrel.  
Ask your local dealer for prices.

- Increases the compressor power and its coefficient efficiency due to the super accurate local adjustment of the parts.
- Increases the capacity of conditioners by up to 5%.
- Prolongs the service life of a compressor by 2–3 times and compensates the current wear-and-tear of parts.
- Damps extreme loads, reduces noise and vibrations.
- Takes care of parts and assemblies of a conditioner compressor and protects it from oversteering.



# COMPRESSOR OIL 100

OILS

GREASES

REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY



XADO Compressor Oil 100 is universally applied for all types of compressors: rotary (including hydrovane ones), screw, single- and multi-stage reciprocating compressors; can be used in vacuum-pumps. Applied to lubricate and seal the units of low-, medium- and high-pressure compressors (0,15...50 mPa) pressing the air or gases which are insoluble in the oil.

Due to synthetic polyalphaolefine base and special additive complex XADO Compressor oil 100 extends oil drain intervals by 8 times and reduces oil evaporation by 3–4 times! Due to extremely low evaporation the oil minimizes the risk of thickening and deposits formation. Has excellent cooling and sealing properties, demulsifies water very fast.

- Compensates current wear of compressor units and protects them against wear.
- Increases efficiency of reciprocating compressors by up to 15 %.
- Increases compressor resource by 2–3 times.
- Reduces power consumption of compressor drive by up to 12%.
- Protects compressor parts from hostile environment effects.
- Decreases oil consumption for lubricating cylinder-piston group of Kreiskopfmachines.
- Ensures super-accurate adjustment of parts to each other during running-in of new compressors and after overhaul.
- Reduces and stabilizes working temperature.
- Reduces noise and vibration.

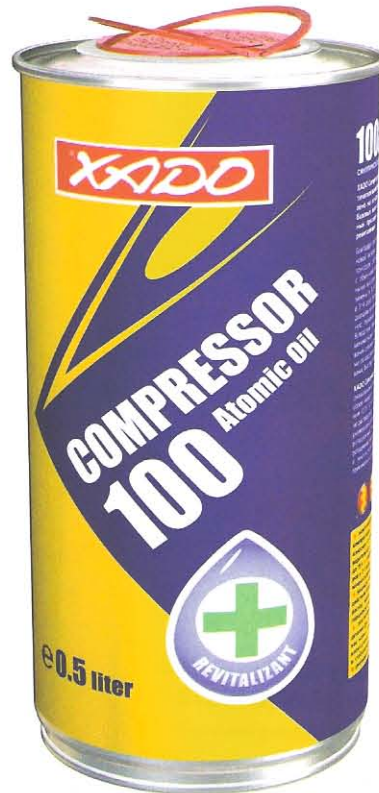
## SPECIFICATIONS

ISO-VG 100  
VDL DIN 51506  
USDA H2

## TECHNICAL INFORMATION

Density at 20 °C, kg/l .....0.874  
Viscosity at 100 °C, mm<sup>2</sup>/s .....12.3  
Viscosity at 40 °C, mm<sup>2</sup>/s .....97.0  
Viscosity index .....115  
Flash point, °C .....277  
Pour point, °C .....<-54

Note. Typical figures are presented.



0,5L

Art. XA 22027

1L

Art. XA 22127

10L

Art. XA 22427

20L

Art. XA 22527

Package: 0.5-20 L can; 60 and 200 L barrel.  
Ask your local dealer for prices.

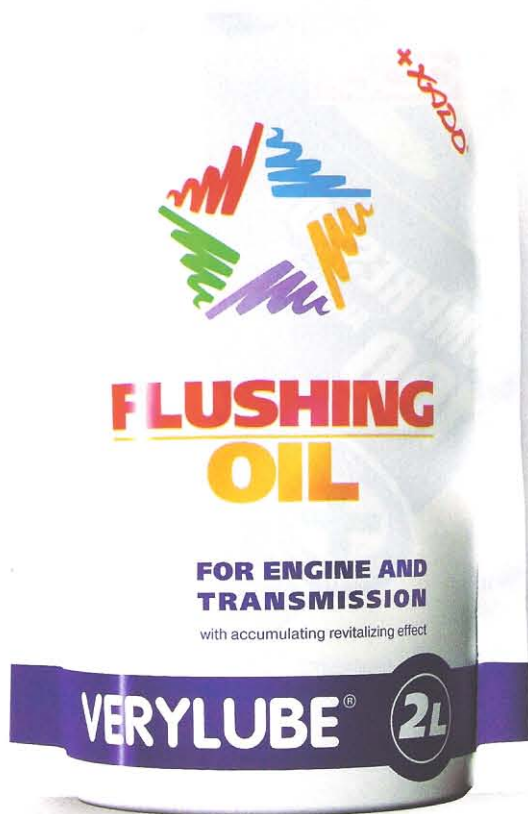
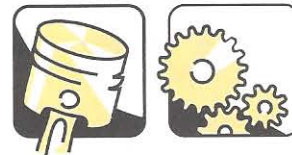


VERYLUBE Flushing Oil

# FLUSHING OIL



Mineral low-viscosity oil for engines and transmissions  
with a complex of special additives.  
Contains revitalizant.

**2L**

Art. XB 22250

**10L**

Art. XB 22350

**20L**

Art. XB 22750

**60L**

Art. XB 22450

**200L**

Art. XB 22550

Package: 2L pack; 10–20 L can; 60 and 200 L barrel. Ask your local dealer for prices.



# ADVANTAGES

VERYLUBE flushing oil is designed to clean oil systems of engines and transmissions. Special detergent-dispersive, anti-wear and anti-burr additives allow safely flushing oil system (for 30–40 minutes) and efficiently cleaning it from all the types of contaminations (up to potential purity).

XADO revitalizant creates a protective reserve during flushing.

## ADDITIONAL ADVANTAGES

- Absolutely safe flush of oil system up to the potential purity (VitaFlush Technology).
- Reserve of wear protection (XADO Technology).
- Possibility of intensive flushing of strong-contaminated assemblies (up to 30–40 min) with anti-wear additives.
- Restoration of the mobility of oil rings and compression rings.
- Elimination of the hydraulic compensators lock.

## ACCUMULATING EFFECT OF REVITALIZATION

XADO revitalizant in the flushing oil effects immediately from the beginning of flushing process. In 10–15 minutes the revitalizant fastens and accumulates in contact places of friction surfaces.

So the revitalizant is not washed away with discharge oil, it remains on the surfaces of the parts as a reserve of protective properties.

As soon as the car starts operating in a regular operating mode, the loads start growing on the mechanism and XADO revitalizant shows its protective properties. It prevents formation of any defects on friction surfaces of the mechanism under overloads and protects them very carefully.

As a rule, after oil drain the smallest metal particles (clusters) rubbed off from the friction surfaces are left in undrainable residues (on the crankcase bottom and oil filter). XADO revitalizant takes care of these particles and returns them into their place during flushing of the engine.

## CHARACTERS

In contrast to other flushing oils, VERYLUBE flushing oil contains a complex of special additives (detergent-dispersive, anti-wear and extreme pressure), it allows safely flushing oil system of the engine up to the potential purity.

- Special low-viscosity base of the oil ensures its easy circulation in the oil system and fast neutralization of sludge contaminations.
- Highly effective washing additives carefully clean internal engine surfaces from sludge and carbon.
- Anti-wear and extreme pressure additives ensures safe flushing of lubricating system even during prolonged flushing process (up to 30–40 min).

## WHY IT IS NECESSARY TO FLUSH THE ENGINE

The oil contains additives and these additives are used and consumed during engine operation. When the engine operates under severe conditions (daily trips for a short distance, "start-stop" drive in a city, long-time operation at idling during traffic jam), additives are consumed much faster.

The oil usually exhausts its reserve of protective and detergent properties by the time of oil change.

Therefore, when you drain the used oil and pour the new one, the additives in the new oil will have to work on the things which the old oil hasn't finished. The new oil will have to wash old deposits instead of protecting the engine from further contaminations.

That is why you need to flush the engine before changing the oil. The engine should be cleaned with a flushing oil. Special detergent/dispersant additives in the flushing oil dissolve and wash away residual contaminations and prepare the engine for the new oil.

## TECHNICAL INFORMATION

Viscosity at 20 °C, kg/l	0.885
Kinematic viscosity at 40 °C, mm <sup>2</sup> /s	30.0
Viscosity index	>100
Flash point, °C	210
Pour point, °C	<-15
Total base number, mgKOH/g	3.4

Note. Typical figures are presented.

## APPLICATION AND DOSAGE

### For engines:

- Drain warm used oil;
- Pour in VERYLUBE flushing oil until the minimum point on a probe;
- Start up the engine and let it idle for 10–15 minutes (if the engine is badly contaminated — for 30–40 minutes);
- Stop the engine, pour out the flushing oil, and replace oil filter;
- Pour in XADO Atomic oil.

### For transmission assemblies:

- Drain warm used oil;
- Pour in VERYLUBE flushing oil into the transmission assembly up to the nominal level;
- Let the assembly work without any load (with put-up wheels) for 10–15 minutes, and up to 30–40 minutes — in case of severe contamination;
- Turn off the engine and drain flushing oil;
- Pour in XADO Atomic oil for transmissions.

**Attention!** Do not drive with the flushing oil in the system!

It is recommended to use with each oil replacement.

To increase the flushing effect, it is recommended to use additionally VERYLUBE ABSOLUT and/or VERYLUBE ANTICARBON.



# XADO GREASE PROTECTIVE

Universal consistent grease.  
Contains revitalizant.  
Compensates 10% wear.



**12 ml**

Art. XA 32101

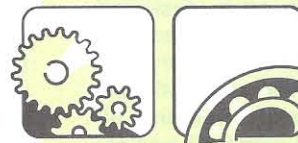
**125ml**

Art. XA 32201

**450ml**

Art. XA 32001

Package: 12 ml — packet from foil-clad cellophane;  
125 ml — plastic tube; 450 ml — grease gun cartridge.  
Ask your local dealer for prices.



It is designed to protect units and mechanisms operating under extreme loads conditions and friction surfaces from wear. It enables to eliminate factory defects of new frictionless bearings and prolongs the service life of the parts by 2–4 times.

It is a universal substitute for any all-purpose lithium greases. The patented formula of this modern grease is based on the composition of XADO revitalizant and EP (Extreme Pressure) complex.

- Prolongs service life of units.
- Compensates 10 % wear.
- Repairs burrs and micro-cracks.
- Reduces noise and vibration.
- Improves treatment cleanness Ra up to 0.06  $\mu\text{m}$ .
- Reduces energy consumption.

## APPLICATION INSTRUCTIONS

*With pressurized application.* Add the grease through the zerk until desired grease volume is reached.

*Manual application.* Eliminate the previous grease and fill 1/2 of bearing volume (unit) with XADO grease PROTECTIVE.

### Note

- The grease is especially effective for protection of bearings against wear (up to 10,000 rpm).
- Recommended for new joints and parts.
- Compatible with automotive and industrial lithium greases of all types; it can be mixed with them in any proportion.

## TECHNICAL INFORMATION

Color, visually .....Orange

Consistence Class based on NLGI .....3

Drop point, °C .....>189

Penetration at 25 °C, mm<sup>-1</sup> .....257

Potential evaporation at 120 °C, % .....<0.2

Working temperature, °C:

Long-term .....<130

Short-term .....<150

Lubricating properties when tested on 4-ball machine (20±5 °C):

Welding load, N .....>2,450

Critical load, N .....>1,039

Wear index, mm .....<0.6

Note. Typical values are indicated.

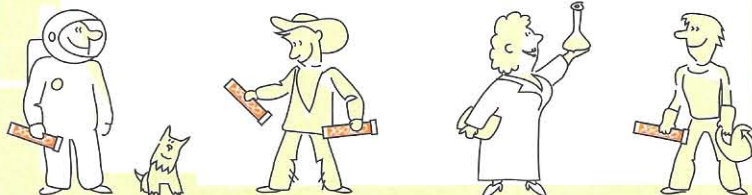
## REQUIREMENTS

XADO grease PROTECTIVE meets the following specification requirements:

**NLGI 3 (ASTM D217)**

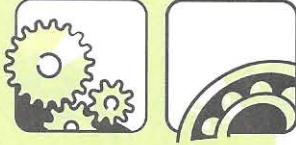
**ISO-L-XBCEB 3 (ISO 6743-9)**

**KP3K-20 (DIN 51502)**



# XADO GREASE RESTORING

Universal consistent grease.  
Contains revitalizant.  
Compensates 50% wear.



It is designed to restore units and mechanisms operating under extreme loads conditions. A new metallo-ceramics coating is formed on the surface of friction pairs: the parts grow in volume and restore their original geometry. It prolongs the service life of parts by 2–4 times.

The patented formula of this modern grease is based on a composition of XADO revitalizant and EP (Extreme Pressure) complex.

- Quickly eliminates wear.
- Compensates 50% wear.
- Increases service life of units.
- Silts burrs and micro-cracks.
- Reduces noise and vibration.
- Stable to high-speed rotations.
- Removes surface defects and corrosion.

## APPLICATION INSTRUCTIONS

*With pressurized application.* Add the grease through the zerk until desired grease volume is reached.

*Manual application.* Eliminate the previous grease and fill 1/2 of bearing volume (unit) with XADO grease RESTORING.

### Note

- The grease is especially effective for restoring the bearings (up to 10,000 rpm).
- For assemblies requiring periodical change of the grease, it is advised to use XADO grease PROTECTIVE later on.
- Compatible with automotive and industrial lithium greases of all types, and can be mixed with them in any proportion.

## TECHNICAL INFORMATION

Color, visually .....Green  
 Consistence Class based on NLGI ..... .3  
 Drop point, °C ..... >193  
 Penetration at 25 °C, mm<sup>-1</sup> ..... .255  
 Potential evaporation at 120 °C, % ..... <0.65  
 Working temperature, °C:  
   Long-term ..... <130  
   Short-term ..... <150  
 Lubricating properties when tested on 4-ball machine (20±5 °C):  
   Welding load, N ..... >2,068  
   Critical load, N ..... >980  
   Wear index, mm ..... <0.7

Note. Typical values are indicated.

## REQUIREMENTS

XADO grease RESTORING meets the following specification requirements:

- NLGI 3 (ASTM D217)**
- ISO-L-XBCEB 3 (ISO 6743-9)**
- KP3K-20 (DIN 51502)**



**12 ml**  
Art. XA 32102

**125ml**  
Art. XA 32202

**450ml**  
Art. XA 32002

Package: 12 ml — packet from foil-clad cellophane;  
125 ml — plastic tube; 450 ml — grease gun cartridge.  
Ask your local dealer for prices.



OILS

GREASES

REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY



# XADO GREASE REPAIRING

Universal consistent grease.  
Contains revitalizant.  
Compensates 80% wear.



**12 ml**

Art. XA 32103

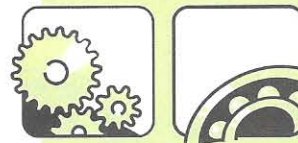
**125ml**

Art. XA 32203

**450ml**

Art. XA 32003

Package: 12 ml — packet from foil-clad cellophane;  
125 ml — plastic tube; 450 ml — grease gun cartridge.  
Ask your local dealer for prices.



It is designed to repair units and mechanisms operating under extreme loads conditions. A new metalloceramics coating is formed on the surface of friction pairs: the parts grow in volume and restore their original geometry. The grease is capable to restore high-speed and heavy-loaded assemblies which cannot be repaired in a traditional way. It can transfer its properties to any other regular grease. The patented formula of this modern grease is based on the composition of XADO revitalizant and EP (Extreme Pressure) complex.

- Compensates 80 % wear.
- Restores geometry of parts.
- Silts burrs and microcracks.
- Reduces noise and vibration.
- Removes surface defects and corrosion.
- Stable to high-speed rotations.

## APPLICATION INSTRUCTIONS

*With pressurized application.* Add the grease through the zerk until desired grease volume is reached.

*Manual application.* Eliminate the previous grease and fill 1/2 of bearing volume (unit) with XADO grease REPAIRING.

### Note

- For those units, which require periodical change of the grease, it is advised to use XADO grease PROTECTIVE later on.
- Compatible with automotive and industrial lithium greases of all types, and can be mixed with them in any proportion.
- The grease is especially effective for repairing of bearings (up to 10,000 rpm).
- **Do not use for new assemblies and parts!**

## TECHNICAL INFORMATION

Color, visually .....Red  
Consistence Class based on NLGI .....2  
Drop point, °C .....>186  
Penetration at 25 °C, mm<sup>-1</sup> .....265  
Potential evaporation at 120 °C, % .....<1,72  
Working temperature, °C:  
Long-term .....<130  
Short-term .....<150  
Lubricating properties when tested on 4-ball machine (20±5 °C):  
Welding load, N .....>2,195  
Critical load, N .....>823  
Wear index, mm .....<0,75

*Note.* Typical values are indicated.

## REQUIREMENTS

XADO grease REPAIRING meets the following specification requirements:

**NLGI 2 (ASTM D217)**  
**ISO-L-XBCE2 (ISO 6743-9)**  
**KP2K-20 (DIN 51502)**



# XADO GREASE SPECIAL

**XADO HIGH-TEMPERATURE greases** are designed to repair, restore and protect assemblies and mechanisms of industrial equipment from wear operating under conditions of high temperatures. **XADO HIGH-SPEED greases** are designed to repair, restore and protect assemblies and mechanisms from wear operating at high rotation speed. Contain revitalizant.



## XADO-250

### Mineral high-temperature grease paste.

It is recommended to be used in frictionless and friction bearings with the frequency of rotation up to 36,000 rpm: conveyers and ovens in bakeries and confectionaries, drum driers, equipment for thermo-chemical treatment of metals, etc. Maximum working temperature: +250 °C.

## XADO-300

### Synthetic high-temperature grease paste.

It is designed for low-speed bearing assemblies (up to 500 rpm) and heavy loaded mechanisms and units: brick and lithium production, chemical and ore mining and processing industries. Maximum working temperature: +300 °C.

## XADO THERMOLUBE-300

### Mineral high-temperature consistent grease.

It is recommended for a wide range of industrial equipment. It is used as a labyrinth grease for bearing assemblies operating under conditions of subacid medium and increased humidity. Maximum working temperature: +300 °C.

## XADO THERMOLUBE-1000

### Synthetic high-temperature lubricating paste.

It is used in friction bearings of industrial equipment with the rotation frequency up to 1,000 rpm; it is also used as a sealing grease and separating grease in press molds in foundry and surface forming in plastics production. Maximum working temperature: +1,100 °C.

## XADO 20K PROTECTIVE

### Synthetic high-speed consistent grease. Compensates 10 % wear.

It is designed to protect assemblies and mechanisms from wear, operating with the rotation speed up to 20,000 rpm.

## XADO 20K RESTORING

### Synthetic high-speed consistent grease. Compensates 50 % wear.

It is designed to restore and protect assemblies and mechanisms from wear, operating with the rotation speed up to 20,000 rpm.

## XADO 60K PROTECTIVE

### Synthetic high-speed consistent grease. It compensates 30 % wear.

It is designed to restore and protect assemblies and mechanisms operating with the rotation speed from 20,000 to 60,000 rpm.



## XADO-250

125ml

Art. XA 32206

## XADO-300

125ml

Art. XA 32207

## XADO THERMOLUBE-300

125ml

Art. XA 32208

## XADO THERMOLUBE-1000

125ml

Art. XA 32209

## XADO 20K PROTECTIVE

125ml

Art. XA 32210

## XADO 20K RESTORING

125ml

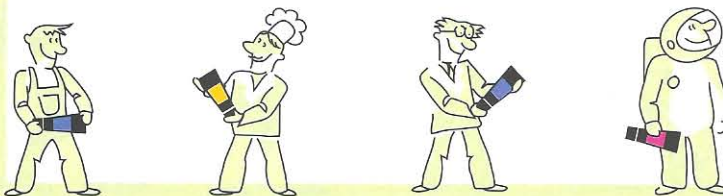
Art. XA 32211

## XADO 60K PROTECTIVE

125ml

Art. XA 32212

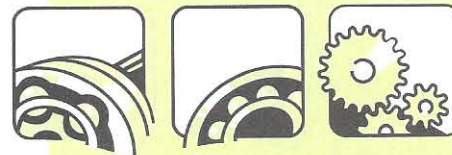
Package: 125 ml — plastic tube.  
Ask your local dealer for prices.



XADO Grease

# XADO GREASE FOR CV JOINTS

Consistent grease for constant velocity joints, assemblies, car bearings and equipment.  
Contains atomic revitalizant. Compensates current wear.



- Perfect grease for constant velocity joints; reduces wear by 2–2.5 times.
- Capable to protect constant velocity joints from moisture and contamination for a long period of time if the protective boot is damaged.
- Super universal grease; used for all assemblies of a vehicle: wheel hub bearings, ball bearings and joints, cardan joints of a transmission, pump and generator bearings; as well as assemblies of industrial and household appliances: open gearing, friction and frictionless bearings, gear-wheels of polishing machines, chains, etc.
- Possesses excellent lubricating properties under any operating conditions (extremely high loads, high and low shear rate, high temperatures, dust level and increased humidity).
- Prevents formation of burrs and corrosion; reduces noise and vibration.
- Due to atomic revitalizant, it keeps the surface in top condition.

**It is the best grease for constant velocity joints. It exceeds any grease with molybdenum disulfide (MoS<sub>2</sub>) in all the properties.**

**It is formulated by the unique co-crystallization technology with complex lithium-calcium thickener (Alasca complex). It is alloyed with a special additive package. It provides a fundamentally new and efficient approach for protective properties of the grease.**

## APPLICATION INSTRUCTIONS

*With pressurized application.* Add the grease through the zerk until desired grease volume is reached.

*Manual application.* Eliminate the previous grease and fill 1/2 of bearing volume (unit) with XADO grease for CV Joints.

### Note

- Recommended for new assemblies and mechanisms.
- For significant restoring repair use XADO grease RESTORING and XADO grease REPAIRING.
- Compatible with automotive and industrial lithium greases of all types, and can be mixed with them in any proportion.

## TECHNICAL INFORMATION

Color, visually ..... Light-amber  
Consistence Class based on NLGI ..... 2  
Drop point, °C ..... >280  
Penetration at 25 °C, mm<sup>1</sup> ..... .275  
Working temperature, °C:

Long-term ..... <135  
Short-term ..... <165

Lubricating properties when tested on 4-ball machine, DIN 51350:

Welding load, N ..... >7,400  
Wear index,

1 hour at 400 N, mm ..... <0.7

Note. Typical values are indicated.

## REQUIREMENTS

XADO grease for constant velocity joints meets the following specification requirements:

**NLGI 2 (ASTM D217)**

**NLGI GC-LB**

**ISO-L-XBCIB 2 (ISO 6743-9)**

**KOG2K-20 (DIN 51502)**



**125ml**

Art. XA 32204

**450ml**

Art. XA 32004

Package: 125 ml — plastic tube; 450 ml — grease gun cartridge.  
Ask your local dealer for prices.



# XADO SUPERGREASE

Universal consistent grease for any assemblies and mechanisms. Contains revitalizant. Compensates 30% wear.



It contains the revitalizant and possesses the ability to protect and restore lubricated surfaces. Modern consumption properties of this lithium grease are gained owing to the addition of XADO revitalizant to EP (Extreme Pressure) complex. It keeps protective and anti-wear properties even after long mechanical and heat overloads. It can be a universal substitute for any automotive grease; it is compatible at any proportion with multy purposes lithium greases. XADO Supergrease is used for assemblies (bearings) of cars, construction tools, household appliances and sports equipment.

- Restores parts with 10-30 % wear.
- Protects the surface of friction pairs from wear.
- Keeps its properties even under prolonged mechanical and thermal loads.
- Prevents corrosion of ferrous and non-ferrous metals.
- Guarantees no jamming of units.
- Possesses water-resistant properties.

### APPLICATION INSTRUCTIONS

Eliminate the previous grease and fill 1/2 of bearing volume (unit) with XADO SUPERGREASE.

#### Note

- Compatible with automotive and industrial lithium greases of all types and can be mixed with them at any proportion.
- Designed for assemblies with the rotation speed up to 10,000 rpm.

### TECHNICAL INFORMATION

Consistence Class based on NLGI ..... 2  
 Drop point, °C ..... >189  
 Penetration at 25 °C, mm' ..... .280  
 Lubricating properties when tested on 4-ball machine (20±5 °C):  
 Welding load, N ..... >2,794  
 Critical load, N ..... >1,235  
 Wear index, mm ..... <0.58

Note. Typical values are indicated.

### REQUIREMENTS

XADO SUPERGREASE meets the following specification requirements:

- NLGI 2 (ASTM D217)
- ISO-L-XBCEB 2 (ISO 6743-9)
- KPF2K-25 (DIN 51502)



**7 ml**

Art. XA 32005

Package: 7 ml — packet from foil-clad cellophane. Ask your local dealer for prices.



OILS

GREASES

REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY

XADO Grease

# GUN CLEANING GREASE

Gun cleaning grease spray for constant use.  
Contains revitalizant.

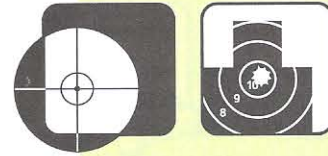

**75 ml**

Art. XA 42003

**500 ml**

Art. XB 42903

Package: 75 ml, 500 ml — aerosol can.  
Ask your local dealer for prices.



It is used to clean and lubricate the arms. It provides fast and easy cleaning of small-bore and large-caliber rifled and smoothbore arms of all types (hunting, sporting, fighting and antique rifles). It is recommended for everyday care of arms with frequent shooting (in a shooting range or during hunting). It provides a reliable protection from corrosion.

- Quickly displaces soiling from nooks of breech mechanisms and triggers.
- Special cleaning components of the grease can easily dissolve gunpowder scale in the barrel bore.
- Effectively lubricates threaded, rotary and pinning joints and protects them from corrosion.
- Guarantees perfect operation of the arms.
- Owing to revitalizant, the grease keeps the surface of the barrel bore in perfect condition.

## APPLICATION INSTRUCTIONS

1. Shake the can.
2. Spray onto all parts and mechanisms of the arms.
3. Clean the arms.

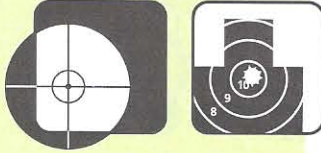
### Note

- Does not contain alkali, neutral to plastics, wood, painted and lacquered surfaces and blueing.
- Does not require to be wiped dry.
- When preparing the arms for a long-term storage, it is advised to use GUN CONSERVING GREASE.



# GUN CONSERVING GREASE

Gun conserving spray grease for conserving, cleaning and lubricating the arms before storage. Contains revitalizant.



It provides a reliable protection of the arms from corrosion even if stored for a long time outdoors. It is used for a small-bore and large-caliber rifled and smoothbore arms of all types (hunting, sporting, fighting and pneumatic).

It is recommended for preparation of the arms for storage and care after shooting.

- Helps to prepare the arms for storage quickly.
- Possesses high penetrating ability and gets to all parts of the arms.
- Special inhibiting components of the grease neutralize aggressive actions of the scale particles left after cleaning.
- Possesses perfect low-temperature properties, provides the mobility and smoothness of the mechanism operation at the ambient temperature up to  $-60^{\circ}\text{C}$ .
- Owing to revitalizant, it keeps the surface of the barrel bore in top condition and prolongs its service life.

## APPLICATION INSTRUCTIONS

1. Shake the can.
2. Spray a thin layer onto the work surface (part, joint).
3. If necessary, wipe with a napkin.
4. If heavily contaminated, repeat the treatment.



**75 ml**  
Art. XA 42004

**500 ml**  
Art. XB 42904

Package: 75 ml, 500 ml — aerosol can.  
Ask your local dealer for prices.

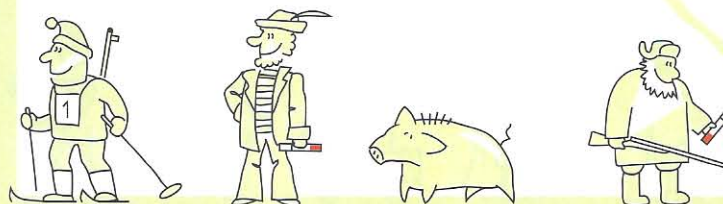
OILS

GREASES

REVITALIZANTS

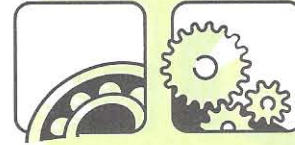
SPECIAL FLUIDS

AUTOCHEMISTRY



# LITHIUM UNIVERSAL GREASE

Universal consistent grease  
with EP (Extreme Pressure) formula.



**5 ml**

Art. XB 32150

**450ml**

Art. XB 32050

Package: 5 ml — packet from foil-clad cellophane;  
450 ml — grease gun cartridge.  
Ask your local dealer for prices.

It is applied to lubricate and protect assemblies and joints operating under high thermal and mechanical loads. It is used to lubricate friction and frictionless bearings of various assemblies and mechanisms. Owing to EP (Extreme Pressure) complex, it is capable to protect mechanisms from the destructive wear while operating and when the use of regular lithium greases is not permitted.

- Possesses high mechanical and chemical stability and keeps protective and anti-wear properties even after prolonged mechanical and thermal loads.
- Owing to the strong adhesive properties, it remains on the lubricated surfaces even under the action of vibration and high rotation speeds.
- Water-resistant and can be used in assemblies operating in contact with water.
- Forms a good isolation and prevents bearing contamination.

## APPLICATION INSTRUCTIONS

*With pressurized application.* Add the grease through the zerk until desired grease volume is reached.

*Manual application.* Eliminate the previous grease and fill 1/2 of bearing volume (unit) with LITHIUM UNIVERSAL GREASE.

### Note

- Compatible with automotive and industrial lithium greases of all types, and can be mixed with them in any proportion.
- Efficient for assemblies with the rotation speed up to 10,000 rpm.

## TECHNICAL INFORMATION

Color, visually . . . . . Light brown  
Consistence Class based on NLGI . . . . . 2  
Drop point, °C . . . . . >180  
Penetration at 25 °C, mm<sup>1</sup> . . . . . 280  
Working temperature, °C:  
Long-term . . . . . <130  
Short-term . . . . . <150  
Lubricating properties when tested on 4-ball machine, DIN 51350:  
Welding load, N . . . . . >3,000  
Wear index, mm . . . . . <0.5

*Note.* Typical values are indicated.

## REQUIREMENTS

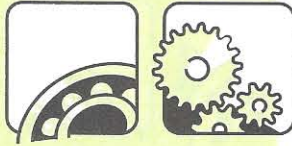
LITHIUM UNIVERSAL grease VERYLUBE meets the following specification requirements:

**NLGI 2 (ASTM D217)**  
**ISO-L-XBCEB 2 (ISO 6743-9)**  
**KP2K-20 (DIN 51502)**



# LITHIUM COMPLEX GREASE

Universal lithium consistent grease with metal conditioner.



It is used to lubricate and protect assemblies and joints operating under heavy thermal and mechanical loads. It is recommended for automotive assemblies and bearings as well as for industrial equipment. Due to the metal conditioner, the grease reduces significantly friction losses; it protects the parts from wear.

- Provides reliable lubrication of assemblies and mechanisms under overloads and high temperatures for a long period of time.
- Significantly decreases friction losses and effectively protects parts from wear.
- Reduces energy consumption.
- It is used in assemblies with a single grease filling for the whole period of operation.
- It prevents formation of rust and corrosion.
- Owing to strong adhesion, it remains on the lubricated surfaces even with strong vibration and high rotation speeds.
- Possesses excellent moisture and dust protection properties.

## APPLICATION INSTRUCTIONS

*With pressurized application.* Add the grease through the zerk until desired grease volume is reached.

*Manual application.* Eliminate the previous grease and fill 1/2 of bearing volume (unit) with LITHIUM COMPLEX GREASE.

### Note

- Compatible with automotive and industrial lithium greases of all types, and can be mixed with them in any proportion.
- Efficient for assemblies with the rotation speed up to 10,000 rpm.

## TECHNICAL INFORMATION

Color, visually .....Brown  
 Consistence Class based on NLGI .....2  
 Drop point, °C .....>280  
 Penetration at 25 °C, mm<sup>-1</sup> .....277  
 Working temperature, °C:  
 Long-term .....<150  
 Short-term .....<200  
 Lubricating properties when tested on 4-ball machine, DIN 51350:  
 Welding load, N .....>3,000  
 Wear index, mm .....<0.5  
*Note.* Typical values are indicated.

## REQUIREMENTS

LITHIUM COMPLEX grease VERYLUBE meets the following specification requirements:  
**NLGI 2 (ASTM D217)**  
**ISO-L-XBDIB 2 (ISO 6743-9)**  
**KP2N-30 (DIN 51502)**

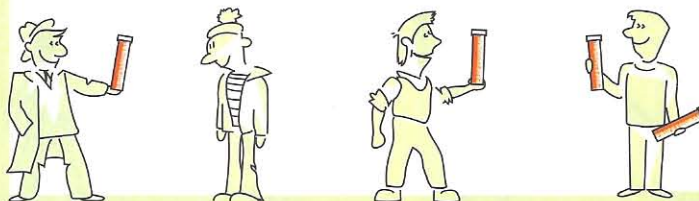


CONTAINS METAL CONDITIONER



**450ml**  
 Art. XB 32052

Package: 450 ml — grease gun cartridge.  
 Ask your local dealer for prices.



OILS

GREASES

REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY

PROFESSIONAL



# LITHIUM GREASE FOR CV JOINTS

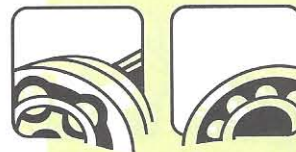
Consistent grease with molybdenum disulfide (MoS<sub>2</sub>) for constant velocity joints.



**450ml**

Art. XB 32051

Package: 450 ml — grease gun cartridge.  
Ask your local dealer for prices.



It is recommended for application in constant velocity joints, assemblies and bearings of vehicles as well as industrial equipment. It contains pure superfine molybdenum disulfide (MoS<sub>2</sub>) owing to which it effectively protects assemblies and bearings operating under peak and/or oscillatory loads.

- Special grease for constant velocity joints.
- Effectively protects assemblies and bearings operating under peak and/or oscillatory loads.
- Possesses high mechanical and chemical stability, keeps protective and anti-wear properties even after prolonged mechanical and thermal loads.
- Owing to strong adhesion, it remains on the lubricated surfaces even under the action of vibration and high rotation speeds.
- Water-resistant and can be used in assemblies operating in contact with water.
- Forms a good isolation and prevents bearings from contaminations.

## APPLICATION INSTRUCTIONS

*With pressurized application.* Add the grease through the zerk until desired grease volume is reached.

*Manual application.* Eliminate the previous grease and fill 1/2 of bearing volume (unit) with LITHIUM GREASE FOR CV JOINTS.

### Note

- Compatible with automotive and industrial lithium greases of all types, and can be mixed with them in any proportion.
- Applied for assemblies with the rotation speed up to 10,000 rpm.

## TECHNICAL INFORMATION

Color, visually .....black  
 Consistence Class based on NLGI .....2  
 Drop point, °C .....>180  
 Penetration at 25 °C, mm<sup>-1</sup> .....285  
 Working temperature, °C:  
   Long-term .....<130  
   Short-term .....<150  
 Lubricating properties when tested on 4-ball machine, DIN 51350:  
   Wear index, mm .....<1.65  
*Note.* Typical values are indicated.

## REQUIREMENTS

VERYLUBE LITHIUM grease for constant velocity joints meets the following specification requirements:

**NLGI 2 (ASTM D217)**  
**ISO-L-XCCEB 2 (ISO 6743-9)**  
**KPF2N-25 (DIN 51502)**



# ANY WAY GREASE

Universal penetrating spray lubricant for different mechanisms. Contains revitalizant.

OILS

GREASES

REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY



It is designed for all types of units and mechanisms, weapon, sundry and equipment. It restores the mobility of units and parts; it can penetrate easily and quickly into the rusted or jammed joints, lubricates and separates them. The grease efficiently protects contact places from corrosion. It is neutral to rubber, wood, plastics, lacquer coating and bluing. All-purpose helper!

- Lubricates assembly parts and restores friction surfaces with the help of the unique XADO technology.
- Protects from rust and corrosion under conditions of increased humidity, contamination and action of hostile environment (saline, acid solution and alkali).
- Displaces moisture and dries the contacts of electric equipment.
- Serious barrier for water and moisture. Prevents electrical leaks and shorts.
- Defreezes door-locks and restores their mobility, protects them from freezing and corrosion.
- Cleans off contamination, easily dissolves grease and tar spots; removes glue residues, insect traces and prevents adhering of dirt and dust.
- Takes care of weapon parts and removes the gun powder scale carefully.
- Preserves parts and protects them from corrosion and oxidation.

### APPLICATION INSTRUCTIONS

1. Shake the can.
2. Spray onto the treated surface from the distance of 10–20 cm.
3. Use the nozzle for hard-to-reach places.



**150ml**  
Art. XB 42001

**300ml**  
Art. XB 42201

**400ml**  
Art. XB 42101

Package: 150–400 ml — aerosol can.  
Ask your local dealer for prices.



# UNIVERSAL PENETRATING LUBRICANT

Universal penetrating spray lubricant.



The lubricant penetrates easily and quickly into threaded and other joints, returns mobility to rusted parts. It is recommended to use in maintenance shops, garages, shops, household and industry. It can lubricate any friction surface of the parts.

- Cleans oil and grease contaminations from car body surfaces.
- Protects parts from corrosion and oxidation.
- Defreezes door-locks and prevents their freezing.
- Displaces moisture and eases the engine start in damp weather.

## APPLICATION INSTRUCTIONS

1. Shake the can.
2. Spray a thin layer onto a work surface (part, joint).

### Note

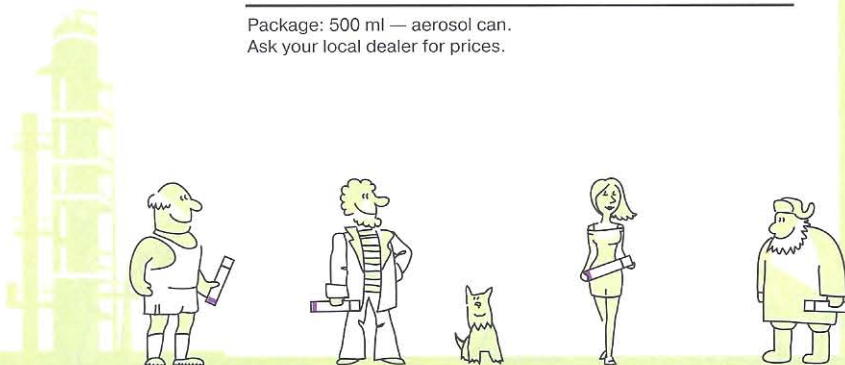
- Neutral to plastic, rubber and wood.



**500 ml**

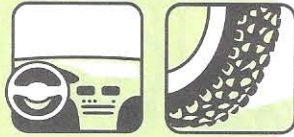
Art. XB 42103

Package: 500 ml — aerosol can.  
Ask your local dealer for prices.



# UNIVERSAL SILICON LUBRICANT

Universal dense silicon spray lubricant.



It lubricates and penetrates into joints made of various materials (metal, plastics, rubber, leather and wood in any combination). It eliminates creaking of plastic panels, slide-blocks and belts. It restores the easiness of lock work. It is used as a preserving anti-corrosion substance for cables, control-rods and levers. It possesses perfect water-resistant properties due to the formation of multimolecular layer of silicon. It prevents plastic and rubber parts from cracking under the sun.

- Cleans and restores plastic, vinyl and rubber surfaces.
- Gives shine and polishes control panels, restores their original color and appearance; restores the appearance of vinyl body upholstery and takes care of the rubber tire-covers.
- Restores the elasticity of seals.
- Prevents adhesiveness of rubber to metal; restores elasticity of stuffing-boxes.
- Protects from corrosion and sunlight.
- Displaces moisture and dust, dries electrical contacts and forms the antistatic film.
- Prevents freezing and ice-formation of rubber sealing of vehicle doors and hatches.
- Separates and protects parts during industrial punching and gas welding.

## APPLICATION INSTRUCTIONS

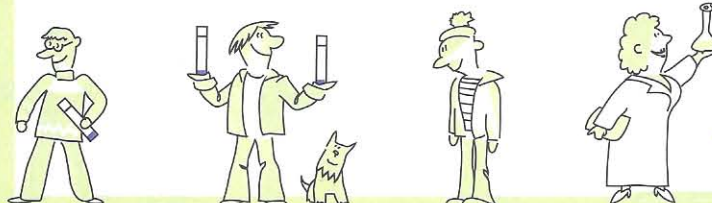
1. Shake the can.
2. Spray a thin layer onto a work surface (part, joint).
3. If necessary, wipe it with a napkin.
4. In case of severe contaminations, repeat the treatment.



**500 ml**

Art. XB 42105

Package: 500 ml — aerosol can.  
Ask your local dealer for prices.



OILS

GREASES

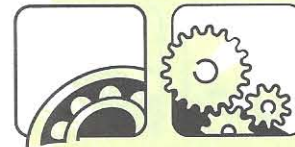
REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY

# LITHIUM CONSISTENT GREASE

Universal consistent spray grease.



It is designed for assemblies and mechanisms (chains, tothing, friction and frictionless bearings, joints, guides and spline connections) operating under high pressure conditions. It protects joints effected by hostile environment (dust, dirt and water) from wear.

- Prevents chain stretching.
- Resistant to high temperatures and loads.
- Possesses strong penetrating and adhesive properties as well as resistance to high-speed rotations.
- Provides lubricating, anti-corrosive and sealing effect.

## APPLICATION INSTRUCTIONS

1. Shake the can.
2. Spray a thin layer onto the cleaned unit or mechanism.

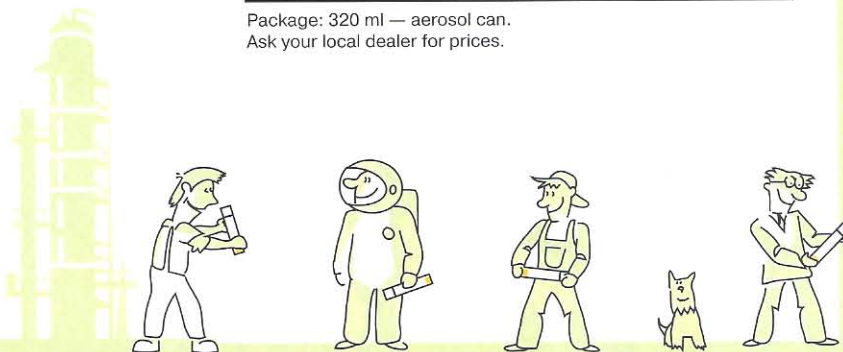
PROFESSIONAL



**320 ml**

Art. XB 42018

Package: 320 ml — aerosol can.  
Ask your local dealer for prices.



# BRAKE CALIPER GREASE

High-temperature grease for guide fingers of brake caliper sliding carriage.



**Special high-temperature grease applied to prevent sticking and seizing of brake pads on guide fingers of sliding carriage.**

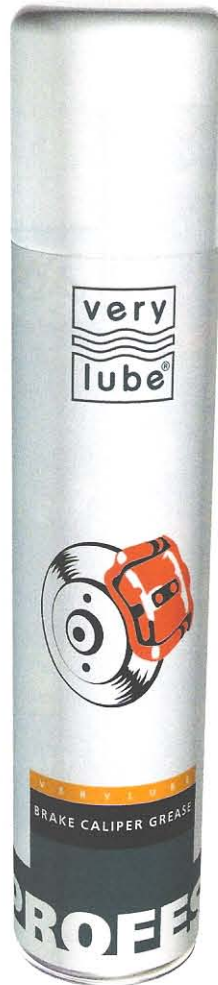
- Provides accurate operation of the whole sliding carriage mechanism, absolute abutment of brake pads and quick unbraking of a brake disc at the end of braking.
- Prolongs the service life of the whole braking system of a vehicle.
- Eliminates noise and creaks when braking.
- Resistant to high loads.
- Has a wide temperature range of application:  $-35...+900$  °C.

## APPLICATION INSTRUCTIONS

1. Twist out the guide fingers of a brake caliper.
2. Shake the can.
3. Apply evenly several layers of the grease (up to 5). Let each layer dry before applying the next one.
4. Assemble the unit.

### Note

- Use when replacing brake pads or next maintenance work.



PROFESSIONAL



**320 ml**

Art. XB 42019

Package: 320 ml — aerosol can.  
Ask your local dealer for prices.

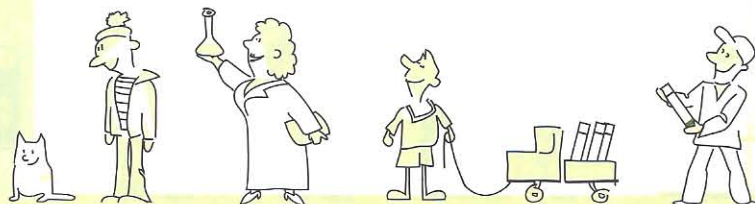
OILS

GREASES

REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY



# FOR ENGINES

Designed for wear protection  
and restoring repair of gasoline and diesel engines  
without disassembling.



Gel-revitalizant  
for gasoline engines

**9 ml**

Art. XA 12101

**3x9ml**

Art. XA 12201

Gel-revitalizant  
for diesel engines

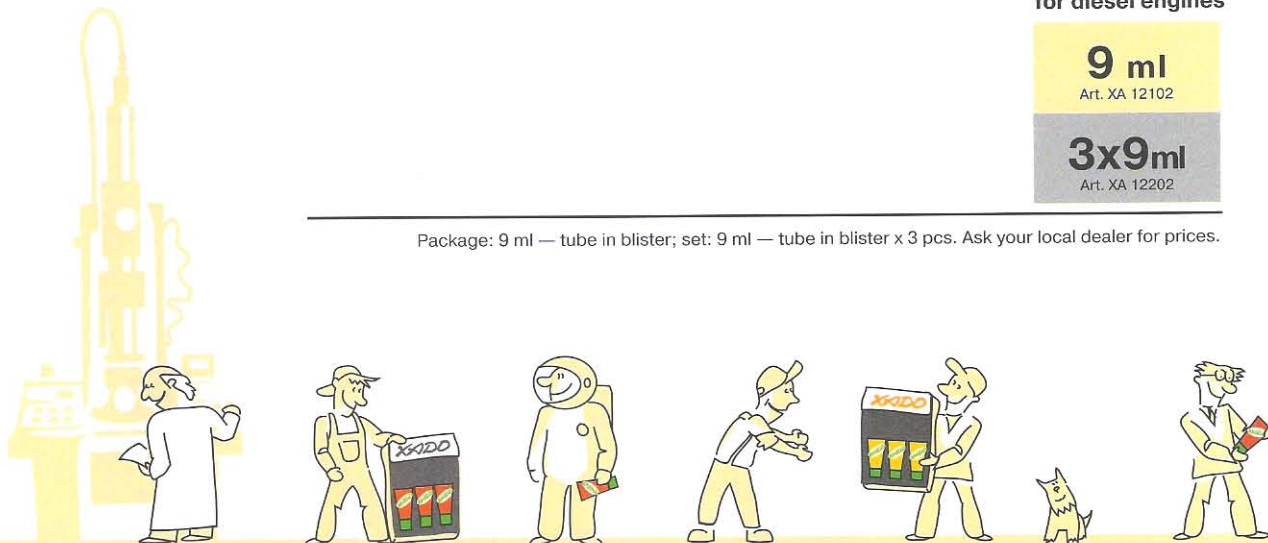
**9 ml**

Art. XA 12102

**3x9ml**

Art. XA 12202

Package: 9 ml — tube in blister; set: 9 ml — tube in blister x 3 pcs. Ask your local dealer for prices.



# ADVANTAGES

A new metalloceramics coating is formed on the surfaces of friction pairs (engine parts increase in volume and restore their geometry). As a result the renovated unit surpasses the new one with its performance level and is guaranteed to serve 2–4 times longer.

- Restores and protects friction parts of the cylinder-piston group, crank- and gas-distributing mechanisms from wear.
- Significantly reduces fuel consumption (up to 30 % at idling).
- Increases oil pressure in the system to nominal one.
- Levels and increases compression in cylinders.
- Increases the power of the engine and improves its acceleration.
- Decreases noise and vibration level by 10 times.
- Increases the life span of the units by 2–3 times.
- Protects the engine from negative consequences of cold starts.
- Improves the engine operation already after 50–100 km.
- Enables to run the engine up to 300 km in case of oil leakage.

## TECHNICAL CHARACTERISTICS

Main characteristics of the metalloceramics coating:  
 microhardness — 750 kgf/mm<sup>2</sup>;  
 high corrosion stability;  
 roughness Ra up to 0.06 μm.

## TREATMENT PROCEDURE

For an engine with oil capacity of 3–10 liters.

**Stage 1:** Squeeze out the contents of one tube into the oil filler neck of the engine warmed up to the working temperature. Start the engine and let it idle for 5–10 min.

**Stage 2:** Repeat the procedure after 100–250 km run.

**Stage 3:** Repeat the procedure after 100–250 km run after completing Stage 2.

### Dosage

Oil system capacity, l	3–10	11–20	21–30
Number of tubes (9 ml), pcs.	3	6	9
Treatment schedule by stages	1+1+1	2+2+2	3+3+3
Tubes for new engines	2	4	6

### Note

- Oil must not be changed until the end of the treatment.
- Treatment is considered to be finished after the mileage of not less than 1,500 km.
- Treatment can be done at idling (4 hours — is an equivalent of 200 km run).
- New engines with run about 20,000 km should be treated in one stage.
- Engines after overhaul are recommended to treat in a usual way in three stages.
- Treatment of engines working on liquefied gas is similar to the treatment process of gasoline engines.
- Protective metalloceramics coating is formed on any working mechanism, however, if the mechanism (engine) is in a critical condition (100% wear), the destroyed parts should be replaced.

## ENGINE REVITALIZATION

During the engine operation, the cylinder-piston group in the upper "dead" point, parts of the gas-distributing mechanism (cam-pusher), friction bearing of the crankshaft and button shaft are subject to major wear.

Revitalizant contains the construction material which compensates wear of these parts. As a result of revitalization, a new multifunctional gradient coating is formed on the surfaces of friction pairs with a set of the required service characteristics and stress states. Engine parts grow in volume and return "hundreds" and "tenths" which have been lost while engine operating. **This is the repair effect.**

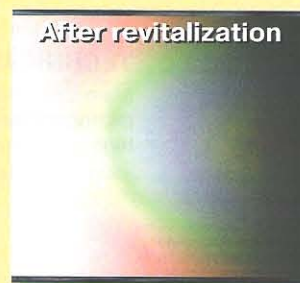
The obtained coating possesses unique properties: significant durability, high rustproof quality and low roughness. After revitalization, the engine parts are guaranteed to serve 2–4 times longer. **This is the effect of wear protection.**

As a result of the engine revitalization, compression in cylinders significantly grows and levels, the fuel consumption decreases, acceleration and car rolling grow; oil pump, turbo units, shafts and bearing brasses (bearings), and cylinder faces are restored; the ellipse form is removed. The engine works quietly, without vibrations. **Due to revitalization the engine can be always kept in top condition.**

## REVITALIZATION RESULTS

Electronic pictures of the cylinder surface in the area of the upper "dead" point are done with a videoimage endoscope.

Car Skoda Fabia, 1.4 l; production year 1999, (mileage before treatment 137,300 km, and after treatment - 139,200 km).



The surface of the cylinder is worn, scratches and risks are 0.1 mm in depth.

Scratches and risks are absent, smooth metalloceramics surface can be seen.

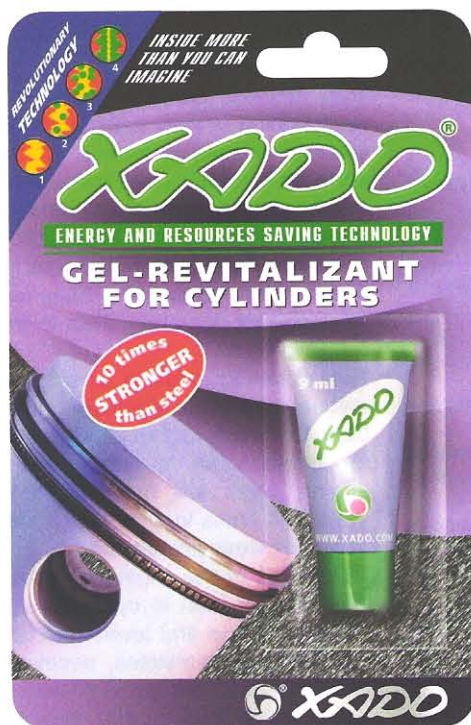
**XADO Revitalizant fully restores the cylinder face forming a metalloceramics coating on its surface.**





## FOR CYLINDERS

Designed for restoring repair and further wear protection of the engine cylinder-piston group without disassembling.



**9 ml**

Art. XA 12105

Package: 9 ml — tube in blister.  
Ask your local dealer for prices.

### TECHNICAL CHARACTERISTICS

Main characteristics of the metalloceramics coating:  
microhardness — 750 kgf/mm<sup>2</sup>;  
high corrosion stability;  
roughness Ra up to 0.06 μm.



As a result of the gel application, the cylinder geometry is restored; its internal diameter is reduced; ellipse form disappears.

- Increases compression.
- Restores cylinder geometry.
- Eliminates scratches and tearings of 0.1 mm size.
- Protects cylinders against wear at cold start.
- Decreases noises and vibration.
- Increases engine power.
- Decreases fuel consumption.
- Reduces the content of CO and CH in exhausts.
- Selective repair is possible (treatment of one or several cylinders).

### APPLICATION INSTRUCTIONS

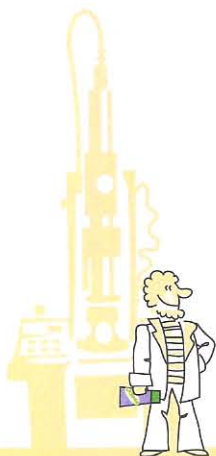
1. Warm up the engine to the working temperature.
2. Twist out the plug from the cylinder; disconnect the central cable of the sensor of ignition timing and switchboard.
3. For 2-stroke engines, put the piston to the upper "dead" point (to avoid the gel getting to inlet and exhaust ports).
4. Squeeze out the contents of one tube into the cylinder.  
**Attention!** Squeeze out the contents of the tube onto the cylinder wall and not onto the piston.
5. Let the piston have 15–20 strokes (with a crank, towing, by rolling a driving wheel, when it is in the air, etc).
6. Twist in the plug and drive the starter 3–4 times for 3–4 sec with the break intervals for 15–20 seconds.
7. For 2-stroke engines, dissolve the contents of another tube in 5–10 ml of motor oil and pour into the fuel tank.
8. Attach the central cable and switchboard, and run the engine at idle for 15 min.
9. Run the car in a usual mode.

### Dosage

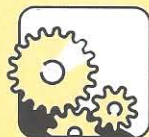
**1 cylinder — 1 tube**

### Note

- It is advised to use medical syringes with a hollow tube for nooks. The contents of the tube with the revitalizant can be dissolved in 5–10 ml of motor oil. To avoid hydraulic shock, the total amount of the fluid introduced to the cylinder shall not exceed 20 ml.
- With the diameter of the cylinder over 120 mm, the revitalization cycle should be repeated.



# FOR GEAR BOXES, TRANSFER CASES & DIFFERENTIALS



The gel-revitalizant forms a new metalloceramics coating with unique characteristics on the surfaces of friction pairs and protects transmission friction parts (pinion gears and bearings) from wear.

- Restores geometry of the part.
- Removes blebs and scratches on work surfaces.
- Optimizes contact patches in pinion engagement areas.
- Reduces noise and vibration by 10 times.
- Increases accuracy of gear shift.
- Improves operation of synchronizers.
- Provides significant fuel economy (especially for all-wheel drive vehicles).
- Enables to run the transmission units (up to 1,000 km) in case of oil leakage.

## APPLICATION INSTRUCTIONS

Treatment of units with the oil system capacity of 1–2 liters.

1. Squeeze out the contents of one tube into the oil filler neck of the gear box, transfer case or axle reducer.

### Dosage

Oil system capacity, l	1–2	2–5	5–8
Number of tubes (9 ml), pcs.	1	2	3
Treatment schedule	Once	Once	Once

2. Treatment is completed after 50 hours of the mechanism operation (1,500 km run).

### Note

- The sure sign of revitalizing beginning is a decrease of noise in the mechanism from the first kilometers of run. If the improvement of mechanism operation stopped at some moment, it testifies to extreme wear of the mechanism — the recommended dose should be doubled.
- If after 100–200 km run, no improvement in the mechanism operation is observed, then the most probable cause is a mistaken diagnostics.

Designed for wear protection and restoring repair of gear boxes, transfer cases and differentials.



9 ml

Art. XA 12103

3x9ml

Art. XA 12203

Package: 9 ml — tube in blister; set: 9 ml — tube in blister x 3 pcs.  
Ask your local dealer for prices.

## TECHNICAL CHARACTERISTICS

Main characteristics of the metalloceramics coating:  
microhardness — 750 kgf/mm<sup>2</sup>;  
high corrosion stability;  
roughness Ra up to 0.06 μm.

OILS

GREASES

REVITALIZANTS

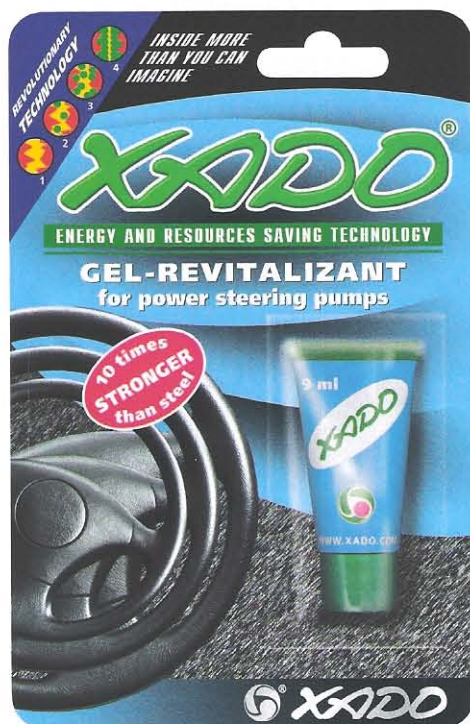
SPECIAL FLUIDS

AUTOCHEMISTRY



# FOR POWER STEERING PUMPS

Designed for wear protection and restoring repair of power steering pumps and other hydraulic equipment.



## 9 ml

Art. XA 12104

Package: 9 ml — tube in blister.  
Ask your local dealer for prices.

### TECHNICAL CHARACTERISTICS

Main characteristics of the metalceramic coating:  
microhardness — 750 kgf/mm<sup>2</sup>;  
high corrosion stability;  
roughness Ra up to 0.06 μm.

It is specially designed for revitalization of hydraulic equipment. A new metalceramics coating is formed on the friction pairs. As a result, the renovated unit surpasses the new one with its performance characteristics and is guaranteed to serve 2–4 times longer.

- Decreases force on a steering wheel.
- Increases the pump performance.
- Increases the accuracy of the hydraulic system operation already after 50–100 km after application of the revitalizant.
- Decreases noise and vibration of the pump of the steering booster.
- Protects parts from wear at the reduced oil level.
- Eliminates pump howling.

### APPLICATION INSTRUCTIONS

Treatment of the unit with the hydraulic system capacity of 1–2 liters.

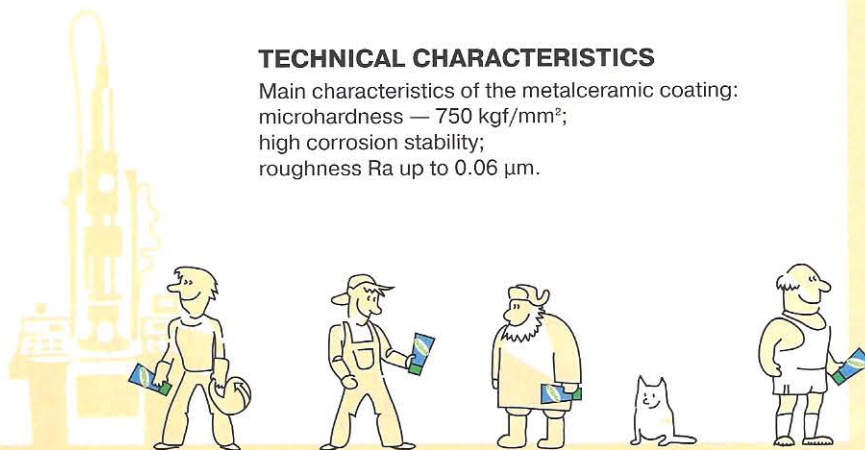
1. Check the working fluid level in the hydraulic booster tank.
2. Squeeze out the contents of one tube into the hydraulic booster tank.
3. After adding the revitalizant, rotate the steering wheel during 5–10 minutes.
4. Revitalization is completed after 50 hours of the mechanism operation (1,500 km run).

### Дозировка

Hydraulic system capacity, l	1–2	2–5	5–8
Number of tubes (9 ml), pcs.	1	2	3
Treatment schedule	Once	Once	Once

### Note

- The sure sign of revitalizing beginning is improvement in the steering-wheel mechanism operation (steering-wheel force augmentation, operation accuracy and noise decrease) already after the first kilometers of run.
- If after 100–200 km run, no improvement can be observed in the hydraulic booster operation, then the most probable cause is a mistaken diagnostics.



# FOR FUEL EQUIPMENT

Designed for wear protection  
and restoring repair of friction parts of fuel equipment  
in gasoline and diesel engines.



Specially designed for revitalization of fuel equipment: high-pressure fuel pumps of all types, unit-injectors, roller and gear pendulous assemblies of electric gasoline pumps. The high microhardness of contact patches, obtained as a result of the treatment, prolongs the service life of the fuel equipment and provides efficient protection against low-quality fuel.

- Restores geometry of the parts and protects friction parts of any fuel pump, injectors and unit injectors from wear.
- Effectively protects from low-quality fuel.
- Reduces fuel consumption.
- Increases engine power.
- Reduces noise and vibration.
- Decreases the amount of toxic components in exhausts.

## APPLICATION INSTRUCTIONS

Treatment of an engine with the capacity of up to 5 liters.

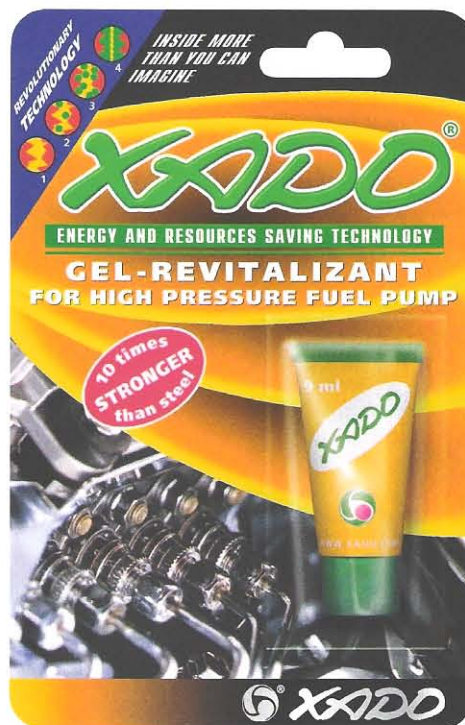
1. Squeeze out the contents of 1 tube into the fuel tank with the minimum quantity of fuel.
2. Add 40–60 liters of fuel into the fuel tank.
3. Run the car as usual.
4. Revitalization is completed after approximately 100 hours of the mechanism operation (about 3,000 km run).

## Dosage

Engine cubic capacity, liters	Number of tubes (9 ml), pcs.
0–5	1
5–15	2
15–30	3
30–75	4
75–100	5
100–140	6

## Note

- Use with the fuel which corresponds to the season.
- Additional (supplementary) filters may reduce the revitalization efficiency.



**9 ml**

Art. XA 12108

Package: 9 ml — tube in blister.  
Ask your local dealer for prices.

## TECHNICAL CHARACTERISTICS

Main characteristics of the metalloceramics coating:  
microhardness — 750 kgf/mm<sup>2</sup>;  
high corrosion stability;  
roughness Ra up to 0.06 μm.



OILS

GREASES

REVITALIZANTS

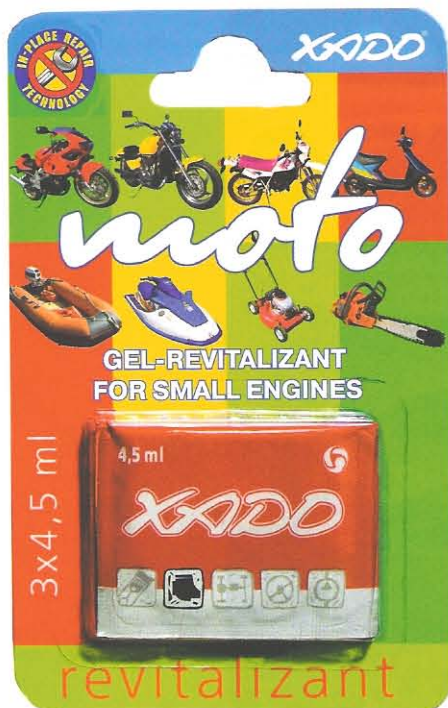
SPECIAL FLUIDS

AUTOCHEMISTRY

XADO gel-revitalizant

## FOR SMALL ENGINES

Designed for wear protection and restoring repair of engine parts of motor technique with working volume up to 1,000 cc.


**3x4,5 ml**

Art. XA 12111

Package: 3 pcs. x 4,5 ml — three sachet in blister package.  
Ask your local dealer for prices.

### TECHNICAL CHARACTERISTICS

Main characteristics of the metalloceramics coating:  
microhardness — 750 kgf/mm<sup>2</sup>;  
high corrosion stability;  
roughness Ra up to 0.06 μm.

It is applied to motorbikes, motorcycles, snowmobiles, water and household motor technique (lawnmowers, chain-saws, etc.). It gives you a triple effect — repair, protection and economy.

- Restores cylinders, eliminates tearing and scratches.
- Increases compression in cylinders.
- Protects friction parts from wear.
- Reduces fuel consumption.
- Increases the engine power up to 100 %.
- Prolongs life span of the engine by 2–4 times.
- Decreases amount of harmful exhausts.
- Reduces noise and vibration.

### APPLICATION INSTRUCTIONS

**For engines with combined fuel and oil system.**

**Stage 1:** Squeeze out the contents of one sachet into the full fuel tank (it is recommended to dissolve the contents of the sachet in the oil or fuel at temperature above 20 °C). Start the engine and let it idle for 2 minutes.

Run the vehicle as usual.

**Stage 2:** Repeat stage 1 when you refill the tank.

**Stage 3:** Repeat stage 2.

**For engines with separated fuel and oil system.**

**Stage 1:** Warm up the engine to the working temperature.

Squeeze out the contents of one sachet into the filler of the engine oil tank.

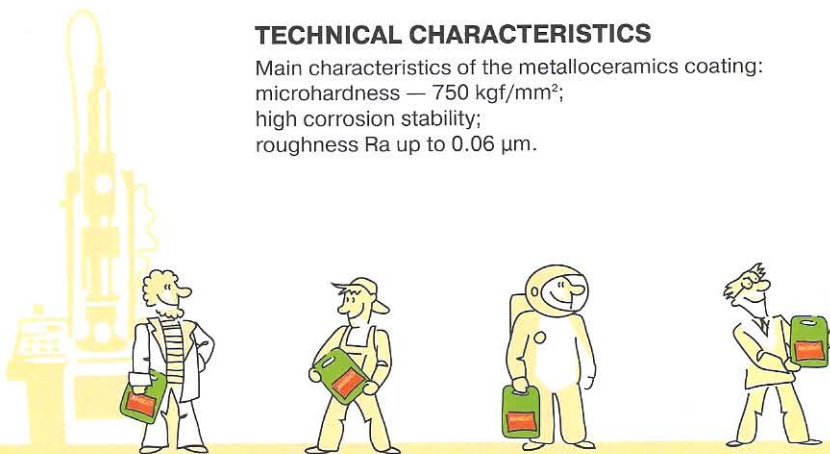
Start the engine and let it idle for 2 minutes. Run as usual.

**Stage 2:** Repeat stage 1 after 150–250 km run of a motorcycle or after 4 hours of the engine operation.

**Stage 3:** Repeat stage 1 again after 150–250 km run of a motorcycle or after 4 hours of the engine operation.

### Note

- The compound is equally effective on application for two- and four-stroke engines of any kind.
- Treatment is completed after no less than 1,500 km run or 20 hours of engine operation.
- It is not necessary to change the oil in 4-stroke engines before the treatment.
- The dose should be doubled for the engines more than 1,000 cc in volume.



# FOR COMPRESSORS AND BEARINGS

Designed for restoring repair and protection of industrial equipment against wear.



Designed for wear protection and restoring repair of bearings in the oil bath as well as compressor units and parts of all types (except the oxygen ones). It prolongs the service life of units and mechanisms by 2–4 times and significantly reduces energy and resource consumption.

- Eliminates gaps and beat of bearings.
- Compressors obtain the nominal parameters much faster.
- Significantly decreases noise and vibrations.
- Decreases the consumption of energy carriers during compressor operating.
- Stabilizes oil pressure.
- Decreases working temperature of units.

## APPLICATION INSTRUCTIONS

Compressor (bearing unit) treatment with the oil bath capacity of 5–7.5 liters.

1. Squeeze out the contents of one tube into the oil filler neck of the compressor (unit) warmed up to the working temperature. Run the compressor (mechanism) as usual.
2. Follow the same application instructions after 8–12 hours of the compressor (unit) operation.
3. Follow the same application instructions after 8–12 hours of operation after Stage 2.

## Dosage

Oil bath capacity, 5–7,5 liters	For repair of compressors (bearings)	For new compressors (bearings)
Number of tubes (9 ml), pcs.	3	2
Treatment schedule	1+1+1	1+1

Specialists of the Commercial Introduction Department of the Chemical Concern XADO will develop a Revitalization Program for the equipment at your enterprise taking into consideration its construction and technological peculiarities; they will make the necessary treatment, take measurements and train the personnel.



**9 ml**  
Art. XA 12006

Package: 9 ml — tube.  
Ask your local dealer for prices.

## TECHNICAL CHARACTERISTICS

Main characteristics of the metalloceramics coating:  
microhardness — 750 kgf/mm<sup>2</sup>;  
high corrosion stability;  
roughness Ra up to 0.06 μm.



OILS

GREASES

REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY

XADO gel-revitalizant

## FOR BARRELS OF RIFLED ARMS

Designed for restoring repair and wear protection of surfaces of any barrel bore of the rifled arms.


**9 ml**

Art. XA 12107

**3x9ml**

Art. XA 12207

Package: 9 ml — tube in blister; set: 9 ml — tube in blister x 3 pcs.  
Ask your local dealer for prices.



After application of the gel-revitalizant, the geometry of the barrel is restored. Improves shooting accuracy significantly. During a short period of time you can have a weapon of a higher class with a prolonged service life.

- Improves accuracy of hits by 80 % with the target 100 m away.
- Improves flatness of shots.
- Increases wear-resistance and durability of a barrel by 10 times.
- Imparts the weapon with the maximum destructive power.
- Restores and protects surfaces of the barrel bore from wear.
- Restores geometry of the barrel bore (complete obturation).

### APPLICATION INSTRUCTIONS

Treatment is carried out in 3 stages. For each stage, a gel with a corresponding color marking should be applied!

#### Stage 1 (10 shots)

1. Use the rifle brush to apply the red gel onto the inner barrel surface.
2. Apply the gel onto the bullet surface protruding out of the cartridge.
3. Make a shot.
4. Make at least 9 more shots having repeated steps 1 and 2.

#### Stage 2 (10 shots)

1. Make at least 10 shots with a preliminary treatment of the barrel bore and a bullet with yellow gel.

#### Stage 3 (10 shots)

1. Make at least 10 shots using green gel.

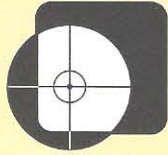
#### Note

- New barrels shall be treated with 10 shots using green gel.
- As a preventive measure for the restored barrels, it is recommended to make 10 shots with green gel after each 1,000 shots or at least once a year.



# SNIPER LACQUER

Designed to improve shooting accuracy of the rifled arm barrels.



Improves the accuracy of hits. Provides a positive accumulating effect as well as an efficient steady result for the barrel bore. The Sniper Lacquer is designed for bullets of any caliber of the hunting and sports arms.

- Immediately improves the accuracy of hits.
- Completely restores geometry of a barrel within 400–500 shots.
- Stabilizes the bullet position in flight (decreases the coefficient of ellipticity of holes).
- Improves shot flatness.

## APPLICATION INSTRUCTIONS

1. Apply the base lacquer-revitalizant (bottle 1) with a thin layer evenly onto the bullet surface.
2. In 10 minutes cover the bullet with a protective lacquer (bottle 2).
3. Let the lacquer polymerize well during 1 hour.
4. Use the bullet as usual without any restrictions.

## Dosage

Approximate rate of application: one package of lacquer per 200 bullets, caliber 7.62x39.

## Note

The contents of the package:

**Bottle 1** — base lacquer-revitalizant for the first layer (10 ml).

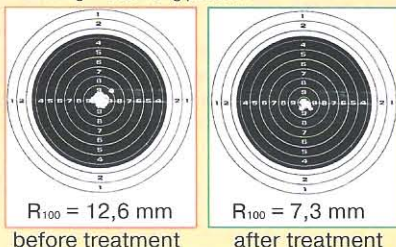
**Bottle 2** — protective lacquer for the finishing layer of a bullet (10 ml).

## TEST RESULTS

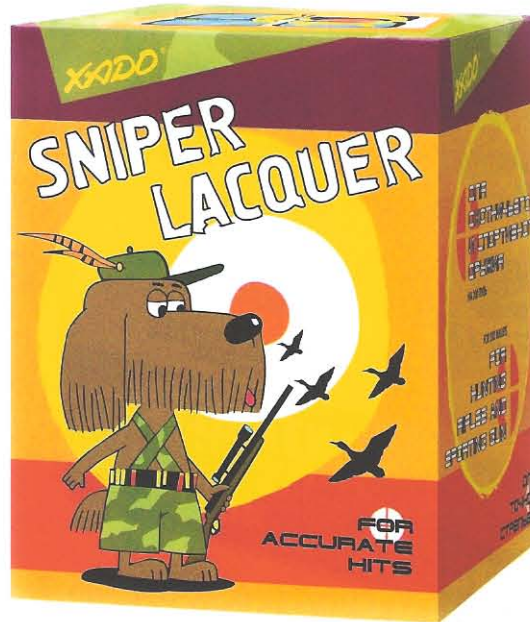
XADO Sniper Lacquer

(accuracy of hits)

Small-bore rifle URAL-5-1, 5.6 mm, 1981 (for sports shooting), distance 50 m, series of 5 shots, with a stand for shooting in a standing position.



After application of XADO SNIPER LACQUER, the accuracy of hits improved by 1.5–2 times.



**2x10 ml**

Art. XA 82001

Package: 2 pcs. x 10 ml — 2 bottles, 10 ml each.  
Ask your local dealer for prices.

OILS

GREASES

REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY

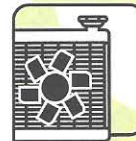






# ANTIFREEZE BS

Fluid concentrate for engine cooling systems.  
Colored blue. Contains revitalizant.



#### Preparation of the coolant

XADO ANTIFREEZE BS	Water	Ambient temperature, °C
1 part (33 %)	2 parts (67 %)	-17
1 part (50 %)	1 part (50 %)	-36
2 parts (67 %)	1 part (33 %)	-64

**1L**

Art. XA 52002

**4L**

Art. XA 52302

**10L**

Art. XA 52402

**20L**

Art. XA 52502

**60L**

Art. XA 52602

**200L**

Art. XA 52702

It exceeds the requirements of the British Standard BS 6580 for coolants for gasoline and diesel engines of passenger cars and trucks. It is formulated on basis of high-quality monoethylene glycol and efficient corrosion inhibitors. It guarantees perfect cooling system operation for two years (100,000 km run). It contains revitalizant which protects bearings of the water pump and ensures pump operation in emergency situation.

- Ensures optimal thermal conditions of the engine under any operating regime.
- Prevents foaming of the fluid and formation of bubbles; guarantees maximum pump capacity and effective heat rejection.
- Prevents deposits formation and keeps the cooling system clean.
- Possesses significant reserve of anticorrosion protection.
- Safe for aluminum and alloys, synthetic materials and rubber.
- Has no aggressive effect on plastics or lacquer finishes.
- Possible use of tap water for preparing coolant.
- Compatible and can be mixed with regular automotive coolants (colored blue).

#### SPECIFICATIONS

BS 6580 (UK); ASTM D 3306 / D 4656 (USA); SAE J 1034 (USA); AFNOR NFR 15-601 (France); ONORM V5123 (Austria); JIS K 2234 (Japan); UNE 26-361 (Spain); AS 2108 (Australia); CUNA NC 956-16 (Italy)

#### TECHNICAL INFORMATION

Density at 20 °C, kg/l ..... 1.129  
pH 33 % solution in water ..... 9.1  
pH 50% solution in water ..... 8.9  
Boiling temperature, °C ..... 170  
Alkalinity, ml 1N HCl/10 ..... 25  
Water content, wt% ..... <3.8  
Color ..... Blue  
Note. Typical values are indicated.

Attention! If undiluted, the product freezes at the temperature -14 °C. To achieve lower freezing temperatures, dilute the concentrate according to the instructions.

Package: 1–20 L cans; 60 and 200 L barrels.  
Ask your local dealer for prices.

OILS

GREASES

REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY





# ANTIFREEZE G11

Fluid concentrate for engine cooling systems.  
Colored green. Contains revitalizant.



It exceeds the requirements of VW, MB, BMW, Opel, MAN, Volvo and other auto manufacturers for coolants for engines of passenger cars and trucks. It is formulated on basis of high-quality monoethylene glycol and high-performance corrosion inhibitors. It guarantees perfect operation of the cooling system during 42 months (175,000 km run). It contains revitalizant which protects bearings of the water pump and ensures pump operation in emergency situations.

- It provides reliable operation of the cooling system of engines of modern cars; it is used in warranty and post-warranty service.
- Prevents formation of deposits and keeps the cooling system clean.
- It is absolutely safe for aluminum and alloys, synthetic materials and rubber; has no aggressive effect on plastics or lacquer finishes.
- Possible use of tap water for preparing coolant.
- Compatible and can be mixed with regular automotive coolants based on ethylene glycol (colored blue, green and yellow).



## SPECIFICATIONS

VW TL-VW 774 C (G11); MB 325.0; BMW N 600 69.0; Opel/GM B 040 0240; SAAB 6901 599; Porsche; MAN 324; Renault Type D; Volvo; Scania TB1451; ASTM D 3306 (USA); SAE J 1034 (USA); Bundeswehr TK-BA2-3-6580-008; French Army, Swedish Army

## TECHNICAL INFORMATION

Density at 20 °C, kg/l .....1,125  
pH 50% solution in water .....7,2  
Boiling point, °C .....174  
Alkalinity, ml 1N HCl/10 .....13  
Water contents, wt% .....<3,5  
Color .....Green  
*Note.* Typical values are indicated.

Attention! If undiluted, the product freezes at the temperature of -14 °C. To achieve lower freezing temperatures, dilute the concentrate according the instructions.



### Preparation of the coolant

XADO ANTIFREEZE G11	Water	Ambient temperature, °C
1 part (33 %)	2 parts (67 %)	-17
1 part (50 %)	1 part (50 %)	-36
2 parts (67 %)	1 part (33 %)	-64

1L

Art. XA 52004

4L

Art. XA 52304

10L

Art. XA 52404

20L

Art. XA 52504

60L

Art. XA 52604

200L

Art. XA 52704

Package: 1–20 L cans; 60 and 200 L barrels.  
Ask your local dealer for prices.



XADO Car Care Fluids

# ANTIFREEZE G12+

Fluid concentrate for engine cooling systems.  
Colored magenta. Contains revitalizant.



**250000 km**  
SERVICE INTERVAL

Preparation of the coolant

XADO ANTIFREEZE G12+	Water	Ambient temperature, °C
1 part (33%)	2 parts (67%)	-17
1 part (50%)	1 part (50%)	-36
2 parts (67%)	1 part (33%)	-64

**1L**

Art. XA 52001

**4L**

Art. XA 52301

**10L**

Art. XA 52401

**20L**

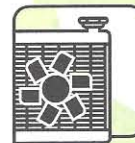
Art. XA 52501

**60L**

Art. XA 52601

**200L**

Art. XA 52701



It exceeds the requirements of VW, MB, Ford, Opel, MAN and other auto manufacturers for coolants for engines of passenger cars and trucks. It is formulated on basis of monoethylene glycol of premium class and highly efficient new generation corrosion inhibitors. It guarantees perfect operation of the cooling system for 5 years (250,000 km run). It contains revitalizant which protects bearings of the water pump and ensures pump operation in emergency situations.

- Increases the intervals of the after-sales service of the car cooling system.
- Possesses maximum possible anticorrosion protection for refrigerating fluids.
- Prevents formation of deposits and keeps the cooling system clean.
- Completely safe for aluminum and alloys, synthetic materials and rubber.
- Has no aggressive impact on plastics and lacquer finishes.
- Possible use of tap water for preparing coolant.
- Compatible and can be mixed with regular automotive coolants (colored blue, green, yellow, violet, red and pink).

## SPECIFICATIONS

VW TL-VW 774 D (G12), (G12+); MB 325.3; Detroit Diesel (incl Powercool plus); Ford WSS-M97B44-D; Opel-GM6277M +B0401065; MAN 324 Typ SNF; Renault Type D; PSA; Deutz / MWM 0199-99-1115 (2091); Scania TB1451; BS 6580; ASTM D3306/ D4656/ D4985; JASO M325; NATO S-759

## TECHNICAL INFORMATION

Density at 20 °C, kg/l .....1,115  
pH 33 % solution in water .....8,0  
pH 50 % solution in water .....7,5  
Boiling point, °C .....175  
Alkalinity, ml 1N HCl/10 .....13  
Water content, wt% .....<3,0  
Color .....Magenta  
Note. Typical values are indicated.

Attention! If undiluted, the product freezes at the temperature of -14 °C. To achieve lower freezing temperatures, dilute the concentrate according the instructions.

Package: 1–20 L cans; 60 and 200 L barrels.  
Ask your local dealer for prices.





# DOT-4

Synthetic brake fluid.  
Contains revitalizant.



It exceeds the requirements of the American Standard DOT 4 and specifications of the leading auto manufacturers (BMW, VW, and MAN) for brake fluids for passenger cars and trucks. Recommended to be used in vehicles equipped with disc or drum brakes, including those with Anti-lock Braking System (ABS) and Acceleration Slip Regulation (ASR); and a hydraulic clutch systems. It is formulated on basis of a special esters complex and low-molecular polymers; alloyed with additives. Due to the revitalizant, the friction surfaces are protected from burrs formation and corrosion, thus providing smooth operation of brakes without shimming and jamming. It guarantees perfect operation of brake system for 30 months (~ 125,000 km run).

- Provides safe and reliable operation of all the types of braking systems.
- Remains incompressible under the most extreme operating mode (with continuous and intensive braking).
- Possesses high wet boiling point (over +170 °C), thus brake failure is prevented.
- Provides fast heat rejection of parts of the braking system and prevents overheating of the brakes.
- Due to low viscosity at low temperatures, it guarantees perfect performance level in cold conditions (below -50 °C).
- Prevents formation of deposits and keeps the braking system clean.
- Compatible with all types of metals, alloys, sealing materials and pipelines used in car braking systems.

## SPECIFICATIONS

DOT 4 FMVSS 116; SAE J 1703; ISO 4925; BMW 9368; VW 3057; MAN TUC v3681

## NOTE

- Mixable with regular brake fluids (fluids of clear golden color DOT 3, DOT 4 and DOT 5.1).
- The fluid is hygroscopic. Keep tightly closed.

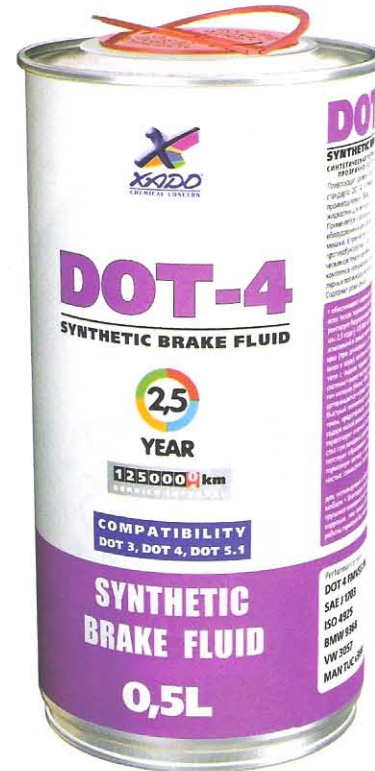
## Why it is necessary to change brake fluids.

Brake fluid is hygroscopic, meaning it has the ability to absorb moisture.

New brake fluid possesses a very high boiling point (over +260 °C) and remains incompressible even at intensive brake heating. It immediately transfers the effort from the driver's brake to the disks of the braking system. With time, moisture getting there through microscopic pores in hoses and seals, accumulates in brake fluids and reduces its boiling point. Overheating of brake disks can cause fluid boiling. Aero-steam gas bubbles appear when boiling and the fluid becomes compressible. The transfer of the braking force does not occur immediately, the driver can feel failure of brakes.

The hygroscopic property of the fluid can cause the risk of brakes seizure. The accumulated moisture has corrosive effect onto materials of cylinders and pistons. Corrosion can lead to the failure of smooth operation of the braking system and can cause seizure of the brakes.

**The brake fluid must be changed after 24–30 months of operation.**



25  
YEAR

125000 km  
SERVICE INTERVAL

0,5L  
Art. XA 52003

1L  
Art. XA 52103

Package: 0,5 and 1 L cans.  
Ask your local dealer for prices.



# XADO A/C

Restoring compound for automobile air conditioners. Contains refrigerant R-134a and synthetic oil with revitalizant.



**125ml**

Art. XA 62001

Package: 125 ml — aerosol can.  
Ask your local dealer for prices.



This complex product is designed for automobile air conditioners. It compensates the gas-refrigerant losses and improves cooling. Due to revitalizant it increases the resource of the compressor and compensates current wear of its parts. It is applied for full or partial charging (recharging) of cooling systems of all types with freon R-134a and for full charging of cooling systems with freon R-12.

- Compensates losses of gas-refrigerant (freon) and oil.
- Extends the resources of the compressor and compensates current wear.
- Restores the air-tightness of the conditioner and reduces the leakage of gas-refrigerant (freon).
- Restores the elasticity and durability of the cooling system compressors and prolongs their life span.

## DOSAGE

**To restore and recharge an air-conditioner:** 1 can of XADO A/C per one system with the volume up to 1.3 L (1 kg) R-134a.

**For restoring repair of a worn air-conditioner compressor:** 2 cans per one system.

**As a preventive measure for new and completely charged conditioners:** 1 can once a year.

## Note

- Use **TEST-CONNECTOR** with a pressure gauge for charging an air-conditioner.

# TEST-CONNECTOR

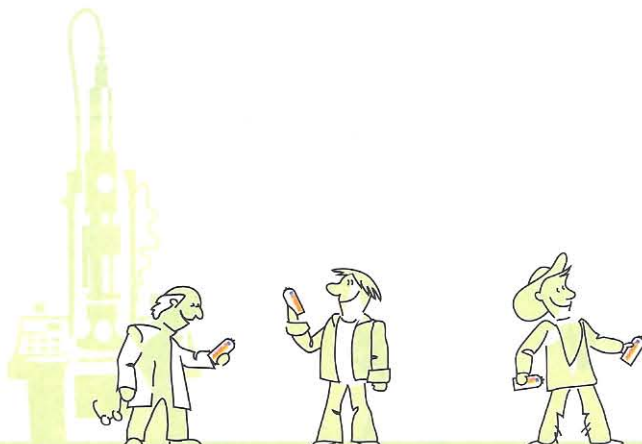
Recharging device with in-line gauge for testing and charging automobile air conditioners.



**1 unit**

Art. XA 62004

Ask your local dealer for prices.



# REFRIGERANT 134A & OIL

Refrigerant R-134a with XADO REFRIGERATION Atomic oil for automobile air conditioners. Contains atomic revitalizant.



Refrigerant R-134a with a special synthetic oil based on esters with atomic revitalizant. It is developed to replace the CFC refrigerant R-12 which causes the destruction of the ozone layer of the Earth. The oil based on the esters possesses excellent lubricating properties, increased adherence to parts surfaces, and shows high chemical and hydrolytic stability. It can be easily mixed with HFC refrigerants R-134a (404a, 407c, etc.). The atomic revitalizant contained in XADO Refrigerant 134a & Oil compensates current wear of parts and units of the compressor and increases its resource. It is used to charge (recharge) the automobile air conditioners with R-134a refrigerant (cars produced since 1993).

- Improves the cooling capacity of air conditioner.
- Compensates current wear of parts of the air conditioner compressor.
- Decreases noise and vibrations.

## DOSAGE

The amount of the refrigerant R-134a charged into automobile air conditioners is usually 500–1,300 g. Three cans of the refrigerant XADO Refrigerant 134a & Oil are enough to charge most air conditioners.

## Note

- Use **TEST-CONNECTOR** with a pressure gauge for charging an air-conditioner.



**500ml**

Art. XA 62002

Package: 500 ml — aerosol can.  
Ask your local dealer for prices.

It is specially designed for automobile air conditioners using R-134a refrigerant.



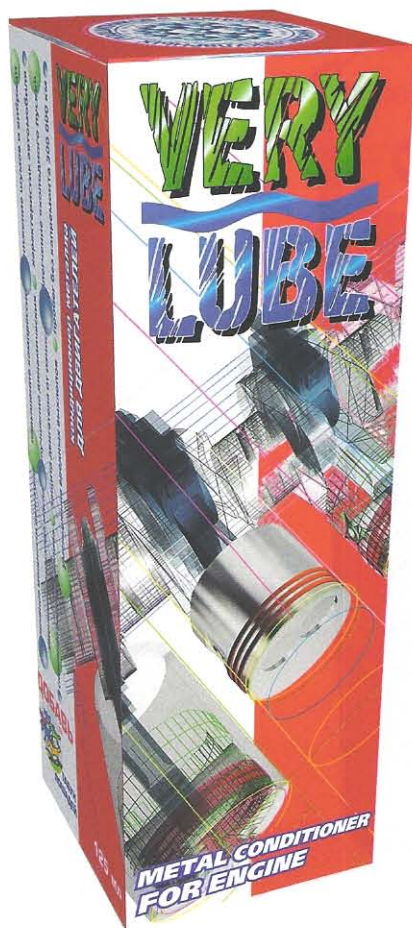
It is applied:

- To check the charge of the air conditioning system with refrigerant;
- To charge or recharge automobile air conditioners.



# VERYLUBE TURBO

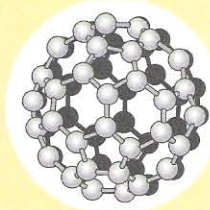
Metal Conditioner.



**125 ml**

Art. XB 42060

Package: 125ml — plastic bottle.  
Ask your local dealer for prices.



A completely synthetic concentrated multicomponent product, composed on the basis of the latest discoveries in tribology and chemistry. It is composed specially for internal-combustion engines. It is used for complex protection of friction units of gasoline and diesel engines, including those with turbo.

- Increases engine power.
- Increases compression.
- Reduces noise and vibration.
- Decreases oil consumption.
- Improves dynamic characteristics of a vehicle.
- Decreases fuel consumption.
- Improves motor oil properties.
- Protects engine parts from wear.
- Makes easy cold start.
- Reduces harmful exhausts.

## APPLICATION INSTRUCTIONS

1. Pour the conditioner into warmed up engine through the oil filler neck.
2. Let the engine idle for three minutes.
3. Conditioner works throughout the whole term of oil use.

## Nominal Dosage

125 ml (1 bottle) for 4 liters of oil.

## Note

- Optimal concentration: 3 % of the oil volume. Overdose up to 50 % is allowed, i.e. up to 4.5% of the oil volume.
- The conditioner has gentle detergent properties that remove carbon from piston rings.
- To achieve the maximum effect — use regularly with each oil changing.

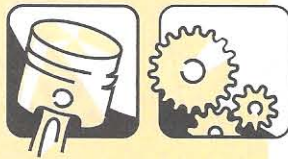
## TECHNICAL CHARACTERISTIC

The formula of VERYLUBE TURBO contains the carbon C60 molecules (fullerenes) and aliphatic hydrocarbons reinforced with halogens.



# METAL CONDITIONER

Multilevel protective formula which prevents engines, transmissions and steering pumps from wear and overloads.



It is formulated to create special work conditions for steering pumps, engine and transmission units. An efficient multilevel system of anti-wear and overload protection is formed.

It is formulated on the basis of a fully synthetic polyatomic polymer and a balanced package of antioxidant and anti-scuffing additives. The polymer molecules are highly resistant to the destructive impact of local overloads in the friction area owing to the covalent atomic bond, which prevents METAL-TO-METAL contact in the friction area for the total period of oil use.

- Protects from wear and overloads.
- Increases power and torque of the engine.
- Prolongs service life of units and assemblies by up to 4 times.
- Reduces fuel consumption by up to 10 %.
- Reduces noise and vibration.
- Reduces the amount of harmful exhausts.
- Increases the accuracy of machinery operation.

## APPLICATION INSTRUCTIONS

### Metal conditioner for engines

1. Pour the substance into a warmed-up engine through the oil filler neck in the amount of 3–6 % of the volume of the oil system indicated in the specification.
2. Let the engine idle for 3 minutes.
3. Operate the vehicle as usual without any limitations. The conditioner works throughout the whole period of oil use.

### Nominal Dosage

125 ml (1 bottle) for 4 liters of oil.

### Metal conditioner for transmission

1. Shake the aerosol can.
2. Spray the substance through the nozzle into the oil filler neck (oil-measuring orifice) of the manual gear box, axle reducer or transfer case.

### Nominal Dosage

- 150 ml (1 aerosol can) for 2 liters of transmission oil.
- 75 ml of the substance (spray it within 1 min) for 1L of transmission oil.



### Metal conditioner for hydraulic systems

1. Shake the aerosol can.
2. Spray the substance through the nozzle into the oil filler neck (orifice of the oil-measuring probe) of the automatic transmission or of the steering pump.
3. Operate the vehicle as usual.

### Nominal Dosage

- 150 ml (1 aerosol can) of the substance for 8 l of the hydraulic liquid.
- 20 ml of the substance (spray within 15–20 sec.) for 1l of the liquid.

### Metal conditioner for engines

**150ml**

Art. XB 42261

### Metal conditioner for transmission

**150ml**

Art. XB 42262

### Metal conditioner for hydraulic systems

**150ml**

Art. XB 42264

Package: 150 ml — can.  
Ask your local dealer for prices.





# ENERGY

Engine power amplifier.



It increases the energy-conversion efficiency of fuel. It improves capacity parameters of engine and thermodynamic properties of combustion materials. It increases the potential reserve of fuel thermal energy. Due to the improved inflammability, makes cold start easy.

- Increases engine capacity.
- Increases energy-conversion efficiency.
- Makes engine start easy.
- Reduces detonation knocking.
- Makes cold start easy.
- Reduces the exhaust of harmful substances (CO and CH) into the atmosphere.

## APPLICATION INSTRUCTIONS

1. Pour the substance into the neck of the fuel tank.
2. Operate as usual.

## Dosage

125 ml (1 bottle) for 40–50 liters of fuel.

## Note

- Does not contain acetone, acid, or alkali and is friendly to the environment.
- Compatible with all types of fuel.
- Safe for catalytic converters and lambda-probes (oxygen sensors), lacquer coatings and general mechanical rubber goods.
- Recommended to add with each fuel filling.

For gasoline engines:

**125ml**

Art. XB 42057

For diesel engines:

**125ml**

Art. XB 42058



Package: 125 ml — plastic bottle.  
Ask your local dealer for prices.



# A/C CLEANER

Product for cleaning and maintenance of automobile air conditioners.



It is used for in-place cleaning of airways of complicated configuration in the modern automobile air conditioners. It removes contaminations quickly and easily and provides inflow of fresh air. It has disinfectant properties. It kills fungi and bacteria, thus preventing the risk of allergies and other respiratory diseases.

- Cleans the air conditioner from contaminations and provides an inflow of clean and pure air from the air conditioner.
- Disinfects the air conditioning system, eliminates musty odors, kills fungi and bacteria.
- Forms a bactericide film on the air conditioner evaporator and airways.

## APPLICATION INSTRUCTIONS

1. Shake the can.
2. Spray into the deflector (airway) for cold air of the air conditioner using tube extender.
3. In 15–30 minutes start the engine and let it idle for 3–4 minutes with air conditioner fan turned on.

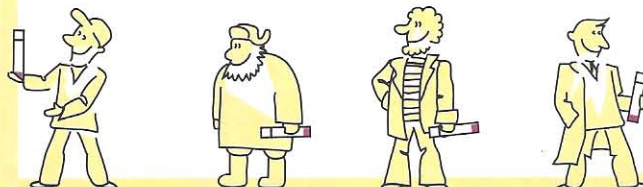
## Note

- Spray the substance when the engine is turned off, doors are opened, in a well-ventilated area or outside.
- Contains biologically active substances.



**320ml**  
Art. XB 42016

Package: 320 ml — aerosol can.  
Ask your local dealer for prices.



OILS

GREASES

REVITALIZANTS

SPECIAL FLUIDS

AUTOCHEMISTRY