

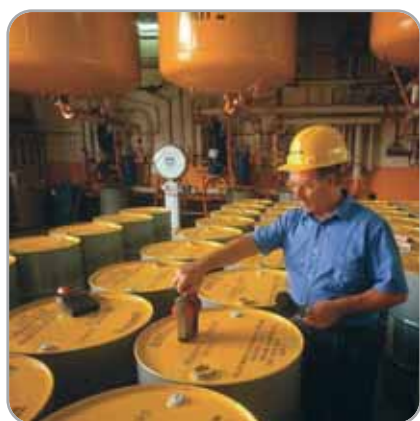
PRODUCTS CATALOGUE



LUKOIL LUBRICANTS COMPANY
LLK-INTERNATIONAL

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General information

LUKOIL is the leader of the Russian oil industry in exploration, production, refining and marketing of petroleum products.

LUKOIL was established in 1991 by comprising a group of oil-and-gas production companies located in the Western Siberian cities of Langepas, Urai and Kogalym. The initial letters of these cities were derived to form the acronym LUK.

LUKOIL, one of the world's largest oil companies, operates on the principle "From the Wellhead Down to the Gas Station" meaning that it is active in oil production and refining and wholesale and retail sale of the petroleum products.

The Company's marketing network encompasses 22 countries of the world, including Russia, CIS countries (Ukraine, Belarus, Azerbaijan, Georgia, Moldova), EU countries (Finland, Poland, Romania, Bulgaria, Hungary, Czechia, Lithuania, Latvia, Croatia, Estonia, Belgium, Cyprus), Turkey, Serbia, Macedonia, Montenegro, and the USA. The company owns 1.3% of global oil reserves and 0.4% of global gas reserves.

LUKOIL's operations are organized under three business segments: Exploration and Production; Refining, Marketing and Distribution; and Chemical.

The Exploration and Production segment includes exploration, development, and production operations relating to crude oil and natural gas. These activities are located primarily within Russia, with additional activities in Azerbaijan, Kazakhstan, Uzbekistan, the Middle East, Colombia, and northern and western Africa.

The Refining, Marketing, and Distribution segment includes refining and transport operations, as well as marketing and trading of crude oil, natural gas, and refined products. LUKOIL runs four main oil refineries in Russia with a combined refining capacity of approximately 44.1 million tons, two "mini-refineries" with an annual crude oil capacity of 0.4 million tons, and refineries outside Russia (Odessa (Ukraine), Burgas (Bulgaria), Ploiesti Refinery (Romania), Helsinki (Finland), and Izmir (Turkey)).

The company is focused on increasing product volume exported as well as increasing geographical diversity. LUKOIL's retail network extends to 24 countries including Russia, Baltic States, CIS, Europe, and USA. LUKOIL has about 6,090 retail of which Europe accounts for 2,041, Russia 1,815, and USA 1,578. LUKOIL has focused on optimizing its retail network. The company has identified and removed low efficiency outlets and invested in expanding high efficiency outlets.

LUKOIL's petrochemical business is the largest in Russia and Eastern Europe. LUKOIL has four major petrochemical plants producing various pyrolysis and organic synthesis products, fuel fractions, and polymer products.

LUKOIL Lubricants

Oils and lubricants production and sales are important part of LUKOIL business. In 2005 LLK-International (LUKOIL Lubricants), a company 100% owned by LUKOIL, was formed, and lubricants became an independent business unit. LUKOIL Lubricants has become a unified responsibility center for this business segment, which allows LUKOIL to consolidate accounting and ensure unbiased evaluation of financial performance, react to market fluctuations promptly, improve and develop lubricant production, pursue research, and optimize lubricant marketing.

LUKOIL Lubricants produces a wide range of products that meet the most advanced operating requirements and specifications of both Russian and foreign vehicle and equipment manufacturers. The range includes base oils (used as inputs for production of ready-to-use oils and lubricants) and industrial oils for use in factory equipment, as well as motor and transmission oils for all types of transport.

Today LUKOIL Lubricants controls the manufacture of more than 40% of all lubricants produced in Russia, amounting to around 1.2 million tonnes, and marketing these products in more than 20 countries across the globe.

LUKOIL Lubricants denotes considerable resources to develop advanced technologies for the manufacture of lubricants and additives. At its outset, the company set up a Science and New Technology Department responsible for developing know-how technologies and formula for new types of high-quality lubricants that modern engineering demands. This work is performed by company specialists in close cooperation with Russian and world leading scientific organizations. By investing in science LUKOIL Lubricants aims to qualitatively improve its product line and increases consumer demand for those products.

CONSUMER





Consumer

In 2007 company specialists developed a unique **"NEW FORMULA"** package for motor oils providing "advanced protection" of engines by activating special components under various driving conditions. "Cold" components of **"NEW FORMULA"** package are activated in cold weather to provide the easy engine starts. "Heat" components are activated under extreme driving and severe temperature conditions to maintain the required lubricant viscosity.

"NEW FORMULA" package generates a flexible film on the internal engine surface reliably protecting it against wear under any driving conditions and extending engine life. Friction reduction significantly improves engine performance, saves fuel and reduces noise.

MOTOR OILS

LUKOIL LUXE



NEW FORMULA

API SM/CF

SAE 5W-40

Specifications/Approvals: ACEA A3/B4-04, MB 229.3, Opel GM-LL-B-025, Porsche, BMW Longlife-98, VW 502 00/505 00

Volume (L): 1; 4; 216.5

BRIEF DESCRIPTION

Premium synthetic engine oils. For use in modern turbocharged gasoline and diesel engines of passenger cars and commercial vehicles.

The unique **"NEW FORMULA"** package for motor oils provides "advanced protection" of engines by activating special components under various driving conditions. "Cold" components of **"NEW FORMULA"** package are activated in cold weather to provide the easy engine starts. "Heat" components are activated under extreme driving and severe temperature conditions to maintain the required lubricant viscosity.

"NEW FORMULA" package generates a flexible film on the internal engine surface reliably protecting it against wear under any driving conditions and extending engine life. Friction reduction significantly improves engine performance, saves fuel and reduces noise.

"NEW FORMULA" – advanced engine protection in all driving conditions!

ADVANCED PERFORMANCE

- Provide easy engine cold start;
- Provide reliable engine protection against wear and corrosion under the most severe operating conditions;
- Prevent the formation of high- and low-temperature deposits in the engine;
- Neutral to vehicle catalytic converter;
- The **"NEW FORMULA"** complex improves engine performance, saves fuel and reduces noise.

LUKOIL LUXE



NEW FORMULA

API SL/CF

SAE 5W-40, 10W-40

Specifications/Approvals: ACEA A3/B3-04,
MB 229.1, VW 501 01 / 505 00

Volume (L): 1; 4; 5; 20; 216.5

BRIEF DESCRIPTION

High quality semi-synthetic multigrade engine oils. For use in modern turbocharged gasoline and diesel engines of passenger cars and commercial vehicles.

The unique **"NEW FORMULA"** package for motor oils provides "advanced protection" of engines by activating special components under various driving conditions. "Cold" components of **"NEW FORMULA"** package are activated in cold weather to provide the easy engine starts. "Heat" components are activated under extreme driving and severe temperature conditions to maintain the required lubricant viscosity.

"NEW FORMULA" package generates a flexible film on the internal engine surface reliably protecting it against wear under any driving conditions and extending engine life. Friction reduction significantly improves engine performance, saves fuel and reduces noise.

"NEW FORMULA" – advanced engine protection in all driving conditions!

ADVANCED PERFORMANCE

- Provide easy engine cold start;
- Provide reliable engine protection against wear and corrosion under the most severe operating conditions;
- Prevent the formation of high- and low-temperature deposits in the engine;
- Neutral to vehicle catalytic converter;
- The **"NEW FORMULA"** complex improves engine performance, saves fuel and reduces noise.

LUKOIL SUPER DIESEL

API CF-4/SG

SAE 5W-40, 10W-40, 15W-40, 20W-50

Specifications/Approvals: ACEA E2-04, MB 228.1, MAN 271, MTU Category 1, Volvo VDS, OAO «KamAZ»

Volume (L): 1; 4; 5

BRIEF DESCRIPTION

High quality semi-synthetic (5W-40, 10W-40) and mineral (15W-40, 20W-50) multigrade engine oils. For use in four-stroke turbocharged heavy duty diesel engines of passenger cars and commercial vehicles.

PERFORMANCE

- Ensure high anti-oxidation and dispersancy properties;
- Effectively protect engine against wear, corrosion and high-temperature deposits;
- 20W-50 viscosity oil reduces oil consumption, wear and noise level (especially in worn engines) under extended road conditions and in hot climate.

LUKOIL SUPER



API SG/CD

SAE 5W-40, 10W-40, 15W-40, 20W-50

Specifications/Approvals: OAO «AVTOVAZ»

Volume (L): 1; 4; 5; 20; 50; 216.5; 1000

BRIEF DESCRIPTION

High quality semi-synthetic (5W-40, 10W-40) and mineral (15W-40, 20W-50) multigrade engine oils. For use in gasoline and low turbocharged diesel engines of passenger cars and commercial vehicles.

PERFORMANCE

- Ensure high anti-oxidation and dispersancy properties;
- Prevent the formation of high- and low-temperature deposits in the engine;
- 5W-40 and 10W-40 viscosity oils provide easy engine cold start;
- 20W-50 viscosity oil reduces oil consumption, wear and noise level (especially in worn engines) under extended road conditions and in hot climate.

LUKOIL STANDARD**API SF/CC****SAE 10W-30, 10W-40, 15W-40, 20W-50****Specifications/Approvals: OAO «GAZ»****Volume (L): 1; 4; 5; 20; 50; 216.5; 1000****BRIEF DESCRIPTION**

Mineral multigrade engine oils. For use in moderate and hot (20W-50) climate zones as basic oils for gasoline and turbocharged diesel engines of passenger cars and commercial vehicles.

PERFORMANCE

- Provide advanced anti-oxidation and dispersancy properties;
- Keep engine parts clean, prevent from high- and low-temperature deposit formation;
- 20W-50 viscosity oil reduces oil consumption, wear and noise level (especially in worn engines) under extended road conditions and in hot climate.

LUKOIL FLUSH SERVICE OIL



Specifications/Approvals: OAO «AVTOVAZ»

Volume (L): 4; 20; 216.5

BRIEF DESCRIPTION

Mineral oil with a compound of highly effective detergent additives. For flushing vehicle engine lubrication systems without disassembly when the motor oil is changed. Quickly and efficiently removes deposits from the engine lubrication system. Provide high detergent, anti-corrosion and anti-wear properties.

PERFORMANCE

- Effectively removes deposits from engine lubrication system parts;
- Considerably reduces the probability of overheating;
- Minimizes wear of the engine rubbing parts;
- Regular flushing of oil system significantly extends engine operating life.

LUKOIL MOTO 2T

Volume (L): 1; 4; 20; 216.5

BRIEF DESCRIPTION

Mineral motor oil for small two-stroke engines. Used as a component of fuel-oil mixtures for motorcycles, scooters, snowmobiles, ATV's, chain saws, personal watercraft and lawn equipment. Low ash formula prevents plug fouling and carbon deposits for longer engine lifetime. Also used for gas-engine compressors and gas engines.

PERFORMANCE

- Ensures high anti-oxidation and anti-wear properties.

TRANSMISSION OILS

LUKOIL TRANSMISSION TM-5



API GL-5

SAE 75W-90, 85W-90, 80W-90

Specifications/Approvals: MB 235.0, MAN 342, M-1, ZF TE-ML 05A, 07A, 08, 16B/C/D, 17B, 19B, OAO «AVTOVAZ»

Volume (L): 1; 4; 20; 50; 216.5

BRIEF DESCRIPTION

High quality semi-synthetic (75W-90) and mineral (85W-90, 80W-90) multigrade transmission oils. The composition contains an additive packages from leading world manufacturers. Excellent for mechanical transmissions of all types (including hypoid) of passenger cars, commercial vehicles and other machinery operating under the most severe conditions where the use of API GL-5 (TM-5) oils is recommended.

PERFORMANCE

- Provide good anti-scuffing, anti-oxidation and anti-corrosion properties during prolonged operation under heavy load and high temperature conditions;
- 75W-90 viscosity oil guarantees stable operation of transmission at low temperatures reducing fuel consumption;
- Provide excellent engine performance through a wide temperature range;
- Ensure long-life performance.

LUKOIL TRANSMISSION TM-4**API GL-4****SAE 75W-90, 85W-85, 80W-90****Specifications/Approvals:** MB 235.1, MAN 341, Z-1, ZF TEML 02A, 08, 16A, 17A, 19A, OAO «AVTOVAZ»**Volume (L):** 1; 4; 20; 50; 216.5**BRIEF DESCRIPTION**

High quality semi-synthetic (75W-90) and mineral (85W-90, 80W-90) multigrade transmission oils. The composition contains additive packages from leading world manufacturers. Excellent for mechanical transmissions of all types of passenger cars, commercial vehicles and other machinery where the use of API GL-4 (TM-4) oils is recommended.

PERFORMANCE

- Provide good anti-wear, anti-scuffing, anti-corrosion and anti-oxidation properties.
- 75W-90 viscosity oil guarantees the stable operation of transmission at low temperatures reducing fuel consumption;
- Ensure long-life performance.

TECHNICAL FLUIDS

LUKOIL ANTIFREEZE ULTRA G12



Volume (kg): 1; 4; 5

BRIEF DESCRIPTION

High-quality antifreeze coolant based on ethylene glycol and concentrate from BASF SE, Germany. For use in all modern car engines operating at temperature conditions above -40°C . Based on carboxylic acid salts corrosion inhibitor (carboxylate technology). Free of amines, nitrites, phosphates, borates, and silicates. Effectively protects all modern engines including heavy duty aluminum ones against freezing, corrosion, overheating and prevents scale deposits. Ready to use. Fully compatible with carboxylic coolants meeting requirements of VW TL774-D/F (G 12) standard.

LUKOIL ANTIFREEZE EXTRA G11



Volume (kg): 1; 4; 5

BRIEF DESCRIPTION

High-quality antifreeze coolant based on ethylene glycol and concentrate from BASF SE, Germany. For use in the engines operating at temperature conditions above -40°C . Based on organic acid salts and silicates corrosion inhibitors. Free of amines, nitrites, and phosphates. Effectively protects engine's cooling system against corrosion and prevents scale deposits. Ready to use. Fully compatible with LUKOIL ANTIFREEZE G 48.

LUKOIL ANTIFREEZE

Volume (kg): 1; 4; 5

BRIEF DESCRIPTION

High-quality antifreeze coolant based on ethylene glycol with carboxylic acid salts corrosion inhibitor (carboxylate technology). For use in all modern car engines operating at temperature conditions above -40°C . Free of nitrites, amines, phosphates, borates and silicates. Effectively protects engine's cooling system against corrosion and prevents scale deposits. Ready to use. Compatible with sealing materials. Freezing point: -40°C .

LUKOIL BRAKE FLUID DOT 4



Volume (g): 910

BRIEF DESCRIPTION

High-quality multigrade brake fluid based on polyethylene glycol monomethyl ethers, borate acid esters and special additives. For use in hydraulic brake systems and transmissions of all modern cars. To be used at temperature condition between +50°C and -50°C. Ensures good viscosity/temperature properties, anti-corrosion and lubricating properties, compatibility with rubber sealants, and stability at low and high temperatures.

COMMERCIAL



Commercial

Engineering progress and severe requirements for the durability of heavy duty engines drive the demand for high-quality diesel oils. New engine design and operating conditions require advanced oil formulations and properties.

Diesel engines differ from other engines in their wide variety of design, carburetion methods, applications, operating conditions, and wide range of horsepower (from several to tens of thousands of kilowatts). The range of diesel oils is therefore considerably different in the requirements to their operating characteristics. The most important criteria determining the oil choice are the type and application of the engine, its performance level, operating conditions, and the grade and quality of fuel used.

Diesel oils are subjected to higher temperatures than gasoline engine oils (up to 350°C) increasing the need for protections from oxidation. Diesel fuel contains a larger quantity of sulfur compounds which, in the process of fuel combustion, generate a significant amount of aggressive acids causing severe corrosive wear in cylinder walls and crankshaft bearing bushes. Accumulated soot and tar deposits formed inside the combustion chamber cause oil thickening, filter plugging, ring sticking and excessive bore polishing. Diesel engine motor oil must therefore have top-rate neutralizing and dispersion properties which are regulated by the adding of a sufficient quantity of alkaline additives and ash-free modified dispersants.

In 2007 LUKOIL Lubricants launched new modern high-quality diesel engine motor oils LUKOIL AVANTGARDE for use in modern trucks, passenger vehicles, agricultural, road-building and other machinery equipped with engines of various performance levels with and without turbocharging operating across a wide range of load conditions.

DIESEL MOTOR OILS

LUKOIL AVANTGARDE ULTRA



NEW FORMULA

API CI-4/SL

SAE 5W-40, 10W-40, 15W-40

Specifications/Approvals: ACEA E7-04, A3/B4-04, MAN M 3275, Volvo VDS-3, RENAULT TRUCKS RLD-2, Cummins 20078, MB 228.3, MTU Category 2

Volume (L): 1; 5; 20; 50; 216.5; 1000

BRIEF DESCRIPTION

Modern semi-synthetic (10W-40) and mineral (15W-40) multigrade engine oils. For use in heavy duty four-stroke turbocharged diesel engines of new generation meeting Euro-3 and Euro-4 requirements. Recommended for engines with EGR systems and extended maintenance intervals. Applicable for turbocharged gasoline and diesel engines of passenger cars and commercial vehicles.

ADVANCED PERFORMANCE

- Operating characteristics surpass the level of Russian and most foreign oils of the same viscosity classes which are imported into the Russian Federation;
- Provide maximum engine protection against wear, corrosion and the formation of high temperature deposits;
- Extend drain intervals reducing maintenance and repair costs;
- The **"NEW FORMULA"** complex improves engine performance, saves fuel and reduces noise.

LUKOIL AVANTGARDE EXTRA



NEW FORMULA

API CH-4/CG-4/SJ

SAE 10W-40, 15W-40

Specifications/Approvals: ACEA E7-04, A3/B4-04, MB 228.3, MAN M3275, Cummins 20076, Volvo VDS-2, MTU Category 2

Volume (L): 1; 5; 20; 50; 216.5; 1000

BRIEF DESCRIPTION

High-quality semi-synthetic (10W-40) and mineral (15W-40) multigrade engine oils. Excellent for heavy duty four-stroke turbocharged diesel engines of new generation meeting Euro-3 requirements. Accommodate extended replacement intervals. Recommended for turbocharged gasoline and diesel engines of passenger cars and commercial vehicles. Adopted for operation with low grade fuels. Recommended for mixed car parks.

ADVANCED PERFORMANCE

- Provide advanced anti-oxidation and dispersancy properties;
- Provide reliable engine protections against wear, corrosion and the formation of high temperature deposits under the most severe operating conditions;
- The **"NEW FORMULA"** complex improves engine performance, saves fuel and reduces noise.

LUKOIL AVANTGARDE

API CF-4/SG

SAE 10W-40, 15W-40

Specifications/Approvals: ACEA E2-04, MB 228.1, MAN 271, MTU Category 1, Volvo VDS, OAO «KamAZ»

Volume (L): 1; 5; 20; 50; 216.5; 1000

BRIEF DESCRIPTION

High-quality semi-synthetic (10W-40) and mineral (15W-40) multigrade engine oils. For use in high-speed four-stroke turbocharged diesel and gasoline engines of light trucks, buses, road-building and other machinery as well as high-speed diesel engines of cutters and yachts.

PERFORMANCE

- Provide advanced anti-oxidation and dispersancy properties;
- Provide reliable engine protections against wear, corrosion and the formation of high temperature deposits under the most severe operating conditions.

G2 (Г2)

GOST 8581-78

BRIEF DESCRIPTION

Monograde mineral oils with composition of high-efficiency additive packages. M-8G2 – winter oil, M-10G2 – summer oil. Used for high-performance automotive diesel engines without turbocharging or with moderate turbocharging. Certified by Gosudarstvenny Standart (GOST).

PERFORMANCE

- Ensure high oxidation stability and anti-corrosion properties.
- Prevent high-temperature deposit formation, reduce engine wear.

TECHNICAL DATA

	M-8G2	M-10G2
SAE	20	30
API	CC	
GOST 17479.1	G2	
Kinematic viscosity at 100°C, mm ² /s	7.5-8.5	10.5-11.5
Viscosity index, min	90	85
Flash point open cup, °C, min	205	210
Pour point, °C, max	-25	-15
Base number, mgKOH/1 of oil, min	6.0	
Sulphated ash content, %, max	1.65	
Mass fraction of active elements Ca/Zn, %, min	0.25/0.06	
Mass fraction of P, %	0.06-0.12	

G2K (Г2К)**GOST 8581-78****BRIEF DESCRIPTION**

Monograde mineral oils with composition of high-efficiency additive packages. M-8G2k – winter oil, M-10G2k – summer oil. Used for high-performance diesel engines without turbocharging, in particular the non-turbocharged KAMAZ diesels and other vehicles. Certified by Gosudarstvenny Standart (GOST).

PERFORMANCE

- Provide excellent lubricating properties, high oxidation stability and ability to neutralize acids produced by oil oxidation process.
- Protect against all types of deposits and corrosion.

TECHNICAL DATA

	M-8G2k	M-10G2k
SAE	20	30
API	CC	
GOST 17479.1	G2	
Kinematic viscosity at 100°C, mm ² /s	7.5-8.5	10.5-11.5
Viscosity index, min	90	85
Flash point open cup, °C, min	205	210
Pour point, °C, max	-30	-15
Base number, mgKOH/1 of oil, min	6,0	
Sulphated ash content, %, max	1.15	
Mass fraction of active elements Ca/Zn, %, min	0.19 / 0.05 / 0.05	

DM/D2 (ДМ/Д2)

GOST 8581-78

BRIEF DESCRIPTION

Monograde mineral oils with high-efficiency additives. M-8DM – winter oil, M-10DM – summer oil. Used for high-performance diesel engines with turbocharging, operating in severe conditions (BELAZ tipper trucks, KAMAZ, MAZ and other bulldozers, tractors and trucks, articulated trucks, tractor haulers, city and intercity buses), and medium-boosted diesels with moderate turbocharging.

PERFORMANCE

- Have a high alkalinity factor, ensuring strong detergent and neutralizing properties of the oil throughout its life and preventing formation of carbon and gummy deposits.
- Provide reliable engine protection against wear and corrosion.

TECHNICAL DATA	M-8DM	M-10DM
SAE	20	30
API	CD	
GOST 17479.1	D2	
Kinematic viscosity at 100°C, mm ² /s	8.0-8.5	Min 11.4
Viscosity index, min	90	
Flash point open cup, °C, min	205	220
Pour point, °C, max	-30	-18
Base number, mgKOH/l of oil, min	85	82
Sulphated ash content, %, max	1,5	
Mass fraction of active elements Ca/Zn, %, min	0.30/0.09	

TRANSMISSION OILS

LUKOIL GEYSER MM SAE 10W, SAE 30, SAE 50

Meet requirements: CATERPILLAR TO-4, ALLISON C-4, ZF TE-ML O3, KOMATSU, API CF, API CF-2.

BRIEF DESCRIPTION

Multifunctional oils for heavy-duty off-road equipment operating in severe conditions and various climatic zones. Contain specialized additives providing smooth running of transmission friction elements, high protection against wear, oxidation, corrosion and foam formation. Used for heavy-duty two- and four-stroke diesel engines adapted for low-quality fuel.

LUKOIL ATF (ATФ)

Approvals: VOITH G 34049, DIWA G607

BRIEF DESCRIPTION

High-quality fully synthetic oil for automatic transmissions and power steering systems. Designed for operation over a wide temperature range. Complies with the requirements of modern transmissions, in particular the GM Dexron III class requirements. Flow point limit is -42°C.

TSp-15K (TCп-15K)

Approvals: KAMAZ
Meet requirements: API GL-3

BRIEF DESCRIPTION

Multigrade mineral transmission oil with composition of additives. For lubrication of heavy-load cylindrical, conical and spiral-conical transmissions of KAMAZ trucks. Recommended for transmissions requiring API GL-3 class oils.

INDUSTRIAL



Industrial

LUKOIL continues to dominate both the automotive lubricants and industrial oils and fluids segment in Russia having a complete range of industrial oils for the Russian market and for the neighbouring countries. LUKOIL is constantly growing to become a more important global player in the lubricants business and it's the company's intention to complete its product offerings to enter foreign markets. LUKOIL Lubricants ensures implementation of new technologies for production of modern, cost-effective lubricants and is focused on continuing efforts to raise the quality and competitiveness of the products improving the grade of oils to meet requirements of international standards, including those put forth by API and ACEA.

In 2008 LUKOIL Lubricants launched new high-quality industrial oils LUKOIL GEYSER, LUKOIL STEELO, LUKOIL SLIDO.

HYDRAULIC OILS

LUKOIL GEYSER – the new hydraulic oils with high degree of purification, ideal filterability and air-separation ability. For use in ultrafiltration systems with a purification degree from 1 to 5 microns. Have high performance characteristics and ensure reliable and long-term operation of filters and pumps, protecting the hydraulic system against corrosion and wear. Allow oil replacement intervals to be considerably extended, thus reducing equipment maintenance costs. Provide the longest possible resistance to contamination of the hydraulic system. Excellent for hydraulic systems in which only minor changes in oil viscosity over a wide temperature range are allowed. Developed jointly with world leaders in production of hydraulic equipment: Vickers, Denison, Bosch Rexroth.

LUKOIL GEYSER ZF - 22, 32, 46, 68, 100 (zinc-free)

Meet requirements: HLP; Denison HF-0, HF-1, HF-2; Vickers I-286-S; Cincinnati Machine P-68/69/70; Eaton Vickers M-2950-S; Bosch Rexroth 90 220.

BRIEF DESCRIPTION

Ultra pure premium hydraulic oil on the basis of high quality mineral oil and a new generation of additives without zinc or chlorine. Ensures improved anti-wear properties for industrial and transport hydraulic systems. The enhanced environmental safety of the oil reduces any adverse impact on humans and the environment.

TECHNICAL DATA	LUKOIL GEYSER 22 ZF	LUKOIL GEYSER 32 ZF	LUKOIL GEYSER 46 ZF	LUKOIL GEYSER 68 ZF	LUKOIL GEYSER 100 ZF
Kinematic viscosity at 40°C, mm ² /s	19,8-24,2	28,8-35,2	41,4-50,6	61,2-74,8	90-110
Viscosity index, min	110	100	99	92	90
Flash point open cup, °C, min	180	200	205	205	210
Pour point, °C, max	-35	-30	-25	-25	-25
Purification degree GOST	8 - 11				
Purification degree ISO	13/10 - 16/13				

LUKOIL GEYSER LT - 22, 32, 46, 68, 100

Meet requirements: Denison HF-0, HF-1, HF-2, Eaton Vickers I-286-5 Industrial Equipment, Vickers M-2950-S Mobile Equipment; Cincinnati Machine P-68/69/70; Bosch Rexroth 90 220; DIN 51524 p.1, 2, 3 (HVLP).

BRIEF DESCRIPTION

Modern hydraulic low-temperature oil on the basis of high-index base oil. Excellent for extremely low temperatures, particularly arctic climates. Ensure high protective and anti-wear features. Recommended for operation in a wide temperature range.

TECHNICAL DATA	LUKOIL GEYSER 22 LT	LUKOIL GEYSER 32 LT	LUKOIL GEYSER 46 LT	LUKOIL GEYSER 68 LT	LUKOIL GEYSER 100 LT
Kinematic viscosity at 40°C, mm ² /s	19,80-24,20	28,80-35,20	41,40-50,60	61,20-74,80	90,00-110,00
Viscosity index, min	150		160	160	130
Flash point open cup, °C, min	180	200	205	210	215
Pour point, °C, max	-45	-40	-35	-35	-35
Purification degree GOST	8 - 11				
Purification degree ISO	13/10 - 16/13				

LUKOIL GEYSER ST – 22, 32, 46, 68, 100

Approvals: Denison HF-0, HF-1, HF-2; Bosch Rexroth 90 220.

Meet requirements: DIN 51524 P. 1, 2 (HLP); Cincinnati Machine P-68/69/70; Eaton Vickers I-286-S; AFNOR NF E 48603 (HM); JCMAS HK.

BRIEF DESCRIPTION

New industrial hydraulic oils with high purification degree and increased stability on the basis of high quality mineral oil and a new generation of additives. For use in ultrafiltration systems with a purification degree from 1 to 5 microns. Have high performance characteristics and ensure reliable and long-term operation of filters and pumps, protecting the hydraulic system against corrosion and wear. Recommended for heavy-duty hydraulic equipment.

TECHNICAL DATA	LUKOIL GEYSER 22 ST	LUKOIL GEYSER 32 ST	LUKOIL GEYSER 46 ST	LUKOIL GEYSER 68 ST	LUKOIL GEYSER 100 ST
ISO	HM/HLP	HM/HLP	HM/HLP	HM/HLP	HM/HLP
Kinematic viscosity at 40°C, mm ² /s	19,8-24,2	28,8-35,2	41,4-50,6	61,2-74,8	90-110
Viscosity index, min	110	110	100	100	95
Flash point open cup, °C, min	180	200	205	210	215
Pour point, °C, max	-36	-30	-27	-25	-21
Purification degree GOST	8 - 11				
Purification degree ISO	13/10 - 16/13				

LUKOIL IGS ISO 32, 46, 68

Approvals: Denison HF-0; Denison HF-1; Denison HF-2.

Meet requirements: DIN 51524 Part 1, 2 (HLP).

BRIEF DESCRIPTION

Industrial hydraulic oils for use in hydraulic systems of machine-tool, press and other industrial equipment. Provide enhanced anti-oxidation and anti-wear properties as well as good filterability, water segregation, high resistance to hydrolysis, thermal decomposition and foam formation. Developed for operation in hydraulic systems with purification degree from 10 to 15 microns.

PERFORMANCE

- Based on highly purified mineral base oil;
- Ensure high thermal-oxidative stability, anti-wear, anti-corrosion and demulsifying characteristics in combination with proper filterability
- Compatible with all sealants and paint coatings normally used in contact with mineral oils.

Not recommended for joint use with oils meant for the same purpose but containing zinc-free additive packages. The anti-wear additive technology used in the LUKOIL IGS oils contains zinc. It is an ideal solution for the majority of hydraulic pump types, though cannot be recommended for precision equipment models furnished with actuating devices manufactured from silver.

TECHNICAL DATA	LUKOIL IGS 32	LUKOIL IGS 46	LUKOIL IGS 68
ISO 11158 / DIN 51524	HM/HLP	HM/HLP	HM/HLP
Kinematic viscosity, mm ² /s			
at 40°C	28	46	68
at 100°C	5.0	6.0	8.0
Viscosity index, min	97	95	95
Flash point open cup, °C	205	210	210
Pour point, °C	-15	-15	-15
Corrosion on copper plate, 3 h at 100-C	2a	2a	2a
Purification degree	11	11	11
Density, kg/m ³	880	885	895

IGP (ИГП) 18, 30, 38, 49, 72, 91, 114

BRIEF DESCRIPTION

Industrial hydraulic oils for use in hydraulic systems of machine-tool, press and other industrial equipment as well as for lubrication of toothed and worm gears. Ensure high anti-oxidation and anti-wear properties. Certified by Gosudarstvenny Standart (GOST).

TECHNICAL DATA	IGP-18	IGP-30	IGP-38	IGP-49	IGP-72	IGP-91	IGP-114
Kinematic viscosity at 40°C, mm ² /s	24-30	39-50	55-65	76-85	110-125	148-165	186-205
Viscosity index, min	90	90	90	90	85	85	85
Flash point open cup, °C, min	180	200	210	215	220	225	230
Pour point, °C, max	-15	-15	-15	-15	-15	-15	-15
Acid number, mgKOH/1 of oil, max	1,0	1,0	1,0	1,0	1,0	1,0	1,0
Sulphated ash content, %, max	0,2	0,2	0,2	0,2	0,2	0,2	0,2
Mass fraction of S, %, min	1,0	1,0	1,0	1,0	1,0	1,0	1,0
Mass fraction of Zn, %, min	0,04	0,04	0,04	0,04	0,04	0,04	0,04

VMGZ (BMF3)

BRIEF DESCRIPTION

Low-temperature hydraulic fluid on the basis of high quality base-stock oil and domestic additive package. Excellent for use in the Far North conditions as an multigrade operating fluid, and in moderate climate zones as winter grade oil in hydraulic drive and hydraulic control systems in construction, road building, timber harvesting and hoisting and conveying machines operating outdoors at wide temperature range.

TECHNICAL DATA	VMGZ
Kinematic viscosity at 50°C, mm ² /s, min	10
Kinematic viscosity at -40°C, mm ² /s, min	1500
Viscosity index, min	160
Flash point open cup, °C, min	135
Pour point, °C, max	-60
Density at 20°C, kg/m ³ , max	860
Sulphated ash content, %, max	0,2

I-20A, I-30A, I-40A, I-50A (И-20А, И-30А, И-40А, И-50А)**BRIEF DESCRIPTION**

Solvent-refined oils without additives for use in machines and mechanisms of industrial equipment having no particular requirements regarding the oil anti-oxidation and anti-corrosion properties. Certified by Gosudarstvenny Standart (GOST).

PERFORMANCE

- Provide good anti-oxidation and demulsifying properties.
- Operate at temperatures between -5°C and +70°C.

TECHNICAL DATA	I-20A	I-30A	I-40A	I-50A
Kinematic viscosity, mm ² /s at 40°C	29-35	41-51	61-75	90-110
Flash point open cup, °C, min	200	200	220	225
Pour point, °C, max	-15	-15	-15	-15
Acid number, mgKOH/1 of oil, max	0,03	0,05	0,05	0,05
Sulphated ash content, %, max	0,005	0,005	0,005	0,005

COMPRESSOR OILS

K3-10

BRIEF DESCRIPTION

Used for lubrication of piston compressors, including heat-stressed compressors, with up to 200°C delivery temperature.

K3-10N

BRIEF DESCRIPTION

Suitable for mobile compressors operating at extremely low temperature conditions.

Extends the trouble-free operation of reduction gears and reduces the number of maintenance and repair operations.

K2-24

BRIEF DESCRIPTION

Oil for lubrication of high-pressure piston compressors of air distribution plants designed for a discharge temperature of up to 180°C, including air-separating plant compressors.

TECHNICAL DATA	K3-10	K3-10N	K2-24
Kinematic viscosity at 100°C, mm ² /s, min	8,8-10.5	9-13	21-25
Viscosity index, min	90	90	82
Flash point open cup, °C, min	205	205	270
Pour point, °C, max	-10	-30	-10
Acid number, mgKOH/1 of oil, max	0,20	0,20	0,35
Base oil ash content, %, max	0,005	0,005	0,06
Coking ability, %, max	0,2	0,2	0,5

GEAR/TRANSMISSION OILS

LUKOIL STEELO ISO 68, 100, 150, 220, 320, 460, 680

Meet requirements: DIN 51517 p.3, SEB 181226, AIST 224, AGMA 9005-E02 (EP), David Brown.

BRIEF DESCRIPTION

Premium oils for industrial toothed gears operating under high loads. The oil features an optimum combination of anti-scuff and anti-friction characteristics, enables the trouble-free operation of reduction gears and reduces the number of routine maintenance operations. Recommended for industrial transmissions and steel gear mechanisms requiring the use of oils featuring anti-scoring properties – bearings, toothed, worm, and helical gears in different industrial machines, as well as for use in circulation systems and in oil fog lubrication and splash lubrication systems.

PERFORMANCE

- Insure advanced service properties owing to a carefully selected formula based on high-index base oils doped with a composition of special sulfur- and phosphorous-containing additives.
- The optimum combination of anti-scoring properties and anti-friction characteristics makes it possible to use oils in different industrial equipment units and assemblies.

TECHNICAL DATA	LUKOIL STEELO 68	LUKOIL STEELO 100	LUKOIL STEELO 150	LUKOIL STEELO 220	LUKOIL STEELO 320	LUKOIL STEELO 460	LUKOIL STEELO 680
Kinematic viscosity at 40°C, mm ² /s	61,2-74,8	90-110	135-150	198-242	311-334	414-506	612-748
Viscosity index, min	90	90	90	90	90	85	85
Flash point open cup, °C, min	210	220	220	220	230	260	270
Pour point, °C, max	-15	-15	-15	-15	-15	-9	-9

I-T-D (И-Т-Д) 32, 68, 100, 150, 220, 320, 460, 680

BRIEF DESCRIPTION

Gear oils with anti-scuff properties manufactured on the basis of highly purified oils with a high viscosity index and including a compound of special sulphur- phosphorus – containing additives. Applied for lubrication of heavy-duty friction units and other industrial equipment for heavy-duty applications that do not allow the use of oils without additives improving lubricating properties.

PERFORMANCE

- Manufactured on the basis of high-quality mineral oils
- Ensures good lubricating, anti-oxidation, anti-corrosion, anti-wear, and scoring resistance properties.

TECHNICAL DATA	I-T-D 32	I-T-D 68	I-T-D 100	I-T-D 150	I-T-D 220	I-T-D 320	I-T-D 460	I-T-D 680
Kinematic viscosity at 40°C, mm ² /s	28,8-35,2	61,2-74,8	90-110	135-150	198-242	311-334	414-506	612-748
Scoring index, Si, N (kgf), min	392 (40)	392 (40)	441 (45)	490 (50)	490 (50)	490 (50)	540 (55)	540 (55)
Wear factor, Di, mm, max	0,45	0,45	0,45	0,45	0,45	0,45	0,45	0,45
Pour point, °C, max	-18	-18	-18	-18	-15	-18	-15	-15

SLIDEWAY OILS

LUKOIL SLIDO 32, 68, 150, 220

Approvals: Cincinnati Machine P-47, P-50, P-53.

Meet requirements: BUJIR PT 37-1.

BRIEF DESCRIPTION

High-quality industrial oils for lubrication of slide guides and tables of machine tools. Have low friction factor, high adhesion to metal surfaces, good filterability, and excellent anti-corrosion and anti-foam properties. Ensure the smooth, jerk-free movement of work pieces for enhanced machining quality and extended tool life. Excellent for hydraulic systems and lubrication of guides including precision program-controlled machine tools.

LUKOIL SLIDO 32 and LUKOIL SLIDO 68 designed for heavy loaded linear and rotary type tables.

LUKOIL SLIDO 150 and LUKOIL SLIDO 220 – high-viscosity oil for heavy-duty tables and vertical slide rails.

TECHNICAL DATA	LUKOIL SLIDO 32	LUKOIL SLIDO 68	LUKOIL SLIDO 150	LUKOIL SLIDO 220
Kinematic viscosity at 40°C, mm ² /s	28,8-35,2	61,2-74,8	135-165	198-242
Viscosity index, min	100	95	90	88
Flash point open cup, °C, min	200	210	220	220
Pour point, °C, max	-25	-20	-15	-15

TRANSFORMER OILS

T-1500u (T-1500y)

BRIEF DESCRIPTION

Oil for use in transformers, oil circuit breakers and other high-voltage equipment as the basic electric insulating material.

TECHNICAL DATA

VALUE

Kinematic viscosity at +40/-30°C, mm ² /s, min	11,0/1300
Dielectric loss tangent at 90°C, %, max	0,5
Flash point open cup, °C, min	135
Pour point, °C, max	-45
Acid number, mgKOH/1 of oil, max	0,01
Ash content, %, max	0,3
Mass fraction of S, %, max	0,3

VG (BF)

BRIEF DESCRIPTION

Mineral oil with anti-oxidation additive, produced from sweet crude oil by hydro-catalytic processes. Used in measuring and power transformers and other equipment rated up to 1150 kV inclusive.

TECHNICAL DATA

VALUE

Kinematic viscosity at +50/-30°C, mm ² /s, min	9,0/1500
Dielectric loss tangent at 90°C, %, max	0,5
Flash point open cup, °C, min	135
Pour point, °C, max	-45
Acid number, mgKOH/1 of oil, max	0,01
Oxidation stability by IEC Induction Oxidation Period method, h, min	120

KM-22 (MEDIUM-VISCOSITY CABLE OIL)

BRIEF DESCRIPTION

Mineral solvent- or Duo-Sol-extracted oil refined using double solvents with subsequent hydrofining. Additive-free. Intended for cooking insulation impregnation compounds for 1-35 kV tight-core power cables.

TECHNICAL DATA

VALUE

Kinematic viscosity at 100°C, mm ² /s, min	22
Coking ability, max	0,6
Flash point open cup, °C, min	270
Pour point, °C, max	-10
Acid number, mgKOH/1 of oil, max	0,03
Specific cubic resistance at 100°C and at least 100 V, Ohm x cm, min	2,0 x 10 ¹⁰
Ash content, %, max	0,007
Dielectric strength at (25±10)°C and 50 Hz AC, mV/m, min	15

GREASES

LUKOIL LITHOL – 24

Class: NLGI-3

BRIEF DESCRIPTION

Lithium-based water-resistant lubricating grease for lubrication of friction units in vehicles and industrial equipment operating at temperatures between -40°C and +120°C

For lubrication of friction units in vehicles and industrial machinery.

Suitable for lubrication of rolling-contact and plain bearings of all types, gear drive joints, friction surfaces in wheeled and track-type vehicles, industrial mechanisms, electrical machines.

LUKOIL SOLIDOL Zh (Ж)

Class: NLGI-3

BRIEF DESCRIPTION

Water-resistant hydrated calcium grease for lubrication of low-loaded (non-airtight) friction, rolling and sliding units.

For lubrication of medium-load friction units in vehicles and industrial machinery.

Suitable for lubrication of coarse friction units in machines and vehicle mechanisms, farm machinery, hand and other tools, screw and chain gears, low-speed gear reduction units.

TECHNICAL DATA

LITHOL-24

Melting point, °C	185
Penetration at 25°C, 0.1 mm	220-250
Breaking point at 20°C, Pa	500-1000
Colloid stability, %, max	12

TECHNICAL DATA

LUKOIL SOLIDOL – Zh

Melting point, °C	75-87
Penetration at 25°C, 0.1 mm	230-290
Breaking point at 20°C, Pa	300-600
Colloid stability, %, max	13

FLUIDS

RZh-8u (PЖ-8y)

BRIEF DESCRIPTION

Cutting fluid for use as working fluid in medium and high-power electro-erosion machines and as cutting fluid in turning and finishing operations during metal processing at the mechanical assembly production facilities in the automotive and bearing industries, in the turning and drilling of non-ferrous metals and their alloys.

TECHNICAL DATA

TECHNICAL DATA	RZh-8u
Kinematic viscosity at 20°C, mm ² /s, min	6,0-8,0
Flash point open cup, °C, min	120
Pour point, °C, max	-10
Mass fraction of S, %, max	0,02

LOW-VISCOSITY METAL WORKING FLUID BASE SOZH (COЖ)

BRIEF DESCRIPTION

Low-viscosity metal working fluid base is produced from low-viscous oil fractions by the hydrocatalytic processes. Developed for grease lubricant and lubricoolant manufacture. Also applied as a working fluid as well as a lubricoolant in turning and finishing operations during metal processing at the mechanical assembly production facilities in the automotive and bearing industries, in the polishing, finishing, honing and washing of non-ferrous metals and their alloys.

TECHNICAL DATA

TECHNICAL DATA	SOZH
Kinematic viscosity at 20°C, mm ² /s, min	3,0
Flash point open cup, °C, min	80
Pour point, °C, max	-20
Mass fraction of S, %, max	0,02

SOFTENING OILS

NETOXOL (НЕТОКСОЛ)

BRIEF DESCRIPTION

Softening oil for the rubber industry. Super purity special-purpose oil. Applied in the manufacture of rubber articles for the food and medical industries; as a component for veterinary vaseline production; as a hardening compound in the vacuum heat treatment of high-alloy steels in the aircraft and general engineering industries.

TECHNICAL DATA	NETOXOL
Kinematic viscosity at 100°C, mm ² /s, min	13-17 (50°C)
Aniline point, °C, max	100
Flash point open cup, °C, min	180
Pour point, °C, max	-10
Color on colorimeter, CNT u., max	1,5

PN-6SH (ПН-6Ш)

BRIEF DESCRIPTION

Oil-based plasticizer oil applied as a filler plasticizer for synthetic rubbers and as a softener for rubber compounds. Available in two versions: PN-6k – for synthetic divinyl and methylstyrene rubbers, and PN-6sh – for rubber compounds used in the manufacture of tires and other articles.

TECHNICAL DATA	PN-6SH
Kinematic viscosity at 100°C, mm ² /s, min	35-40
Aniline point, °C	55-65
Flash point open cup, °C, min	230
Pour point, °C, max	-36
Refractive index at 50°C	1,525-1,540

PM (ПМ)

BRIEF DESCRIPTION

Softening oil for the rubber industry. Applied in the manufacture of tires and industrial rubber articles.

TECHNICAL DATA	PM
Kinematic viscosity at 100°C, mm ² /s, min	5,0-6,0
Aniline point, °C, min	98
Flash point open cup, °C, min	205
Pour point, °C, max	-15
Color on colorimeter, CNT u., max	2,0

LUKOIL AZH (АЖ)

BRIEF DESCRIPTION

Super purity mineral oil with a composition of high-performance additives. Applied for vehicle shock-absorbers and telescopic struts. Ensures excellent low-temperature and anti-wear properties, an oxidation stability and a foam suppression capability.

TECHNICAL DATA	LUKOIL AZH
Kinematic viscosity at 50°C, mm ² /s, min	12
Kinematic viscosity at -20°C, mm ² /s, max	800
Flash point open cup, °C, min	140
Pour point, °C, max	-50
Viscosity index, min	120

TURBINE OILS

TP-30 (ТП-30)

BRIEF DESCRIPTION

Turbine oil for lubrication and cooling of bearings in different turbo-units: steam and gas turbines, hydroturbines, turbocompressor machines, as well as for service in control systems as a hydraulic fluid. Usable as a working fluid in turboset control systems and in circulation and hydraulic systems of different industrial mechanisms.

PERFORMANCE

- High oxidation resistance, metal corrosion protection.
- Foam suppression capability.
- Good demulsification capability.

Certified by GOST.

TECHNICAL DATA	TP-30
Kinematic viscosity at 40/50°C, mm ² /s, min	41,4-50,6
Viscosity index, min	95
Flash point open cup, °C, min	190
Pour point, °C, max	-10
Mass fraction of sulfur in base oil, %, max	0,8
Demulsification, s, max	210
Acid number, mgKOH/1 of oil, max	0,5
Color on colorimeter, CNT u., max	3,5

TP-22S (ТП-22с)

BRIEF DESCRIPTION

Turbine oil for lubrication of steam and turbocompressor machines when oil viscosity provides necessary anti-wear properties.



Certified by GOST.

TECHNICAL DATA	TP-22S
Kinematic viscosity at 40/50°C, mm ² /s, min	28,8-35,2
Viscosity index, min	90
Flash point open cup, °C, min	186
Pour point, °C, max	-15
Mass fraction of sulfur in base oil, %, max	0,5
Demulsification, s, max	180
Acid number, mgKOH/1 of oil, max	0,07
Color on colorimeter, CNT u., max	2,5

AVIATION OILS

AMG-10 (AMГ-10)

BRIEF DESCRIPTION

Super purity hydraulic mineral oil with a composition of domestically produced additives. Applied as a working fluid for aircraft and ground-based equipment hydraulic systems operating in the $-60^{\circ}\text{C} - +50^{\circ}\text{C}$ temperature range.

TECHNICAL DATA AMG-10

Kinematic viscosity at 50°C , mm^2/min , min	10
Kinematic viscosity at -50°C , mm^2/min , max	1250
Flash point open cup, $^{\circ}\text{C}$, min	93
Pour point, $^{\circ}\text{C}$, max	-70
Acid number, $\text{mgKOH}/1$ of oil, max	0,3

MS-20 (MC-20)

BRIEF DESCRIPTION

Solvent-extracted mineral oil without additives. Approved for use in aircraft piston engines, gas turbine engines, helicopter gearboxes and in propeller hub axle joints in "MI" helicopters.

TECHNICAL DATA MS-20

Kinematic viscosity at 100°C , mm^2/s , min	20,5
Viscosity index, min	80
Flash point open cup, $^{\circ}\text{C}$, min	265
Pour point, $^{\circ}\text{C}$, max	-18
Acid number, $\text{mgKOH}/1$ of oil, max	0,03
Ash content, %, max	0,003
Coking ability, %, max	0,29



SPECIFICATIONS / REQUIREMENTS

Since 2007 LUKOIL Lubricants has been a member of ATIEL (Technical Association of the European Lubricants Industry) and CIMAC (International Council on Combustion Engines). Membership in international associations promotes cooperation with equipment manufacturers worldwide and the timely receipt of information about the development of technical requirements and specifications.

The production plants have been certified to ISO 9001, ISO 14001, and OHSAS 18001 standards, which guarantees its customers sustained high product quality.

LUKOIL performs quality control throughout the lubricant manufacturing process, each batch is tested for compliance with all the requirements prior to shipping and is provided with a quality certificate, certificate of compliance and health certificate. The company guarantees lubricants compliance with the API and ACEA standards.

REACH

In December 2008 LUKOIL has successfully completed pre-registration of chemicals in accordance with the requirements of the Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) adopted by the European Parliament and the Council. As part of the procedure, a unique reference number was assigned to each chemical coming from a particular manufacturer or importer. Manufacturers outside of the European Union had to appoint a special representative authorized to act as the importer of the goods produced by the given manufacturer.

“LUKOIL Neftochim Bourgas” AD (responsible for products manufactured at the Company's refineries, petrochemical enterprises and gas processing enterprises) and LLK LUBRICANTS ROMANIA (responsible for products manufactured by lubricant departments of the Company's refineries) have been assigned as OAO LUKOIL's special EU representatives.

The total amount of the pre-registered chemicals manufactured by the Russian and foreign refineries, petrochemical enterprises and gas processing enterprises of OAO LUKOIL came to over 200 items.

RIGHT OIL FOR YOUR CAR

Two basic criteria should be taken into account while selecting oil for your car:

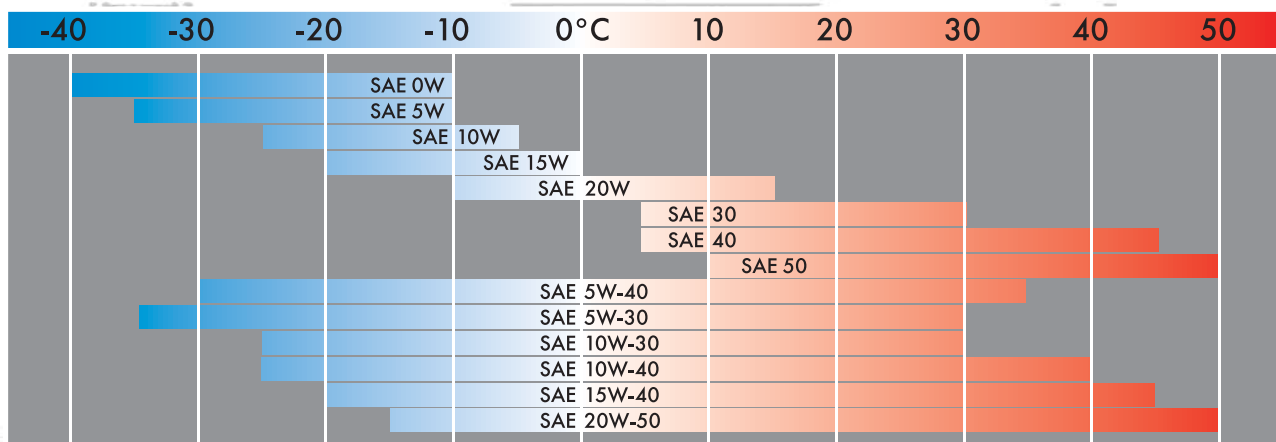
- The oil performance characteristics under API or ACEA classification should meet the oil requirements specific for your car engine mentioned in the car operating manual;
- Viscosity by SAE classification depending on temperature conditions and car operating manual.

SAE Classification

Ability to retain viscosity within specified limits under a wide temperature range (from low temperature condition at cold start in winter till maximum load temperature in summer) is one of the main motor oil properties. The SAE J300 standard defines the different viscosity grades used for engine oils. The standard defines six winter (0W, 5W, 10W, 15W, 20W and 25W) and five summer (20, 30, 40, 50 and 60) viscosity grades. Single or monogrades oils have to meet the minimum and maximum viscosity limits at 100°C. Multigrades have to meet maximum low temperature viscosity and maximum low temperature pumping viscosity of the wintergrade and the minimum viscosity at 100°C

Viscosity grades under SAE J300 inform the consumer the oil temperature limit at which the engine can be cranked by starter and the oil pump circulates oil under pressure during cold start.

The consumer should be aware that operating temperature ranges of any given SAE oil grade differ considerably for different engine designs. It depends on starter power, minimum crankshaft rotation start speed required to start the engine, oil pump delivery, hydraulic resistance of the oil receiver path and many other design, technological and operational factors (the vehicle technical condition, quality of gasoline or diesel fuel, driver skill etc.).



API Classification

API (American Petroleum Institute) classification is the best known global classification of motor oils. Since its introduction in 1947, this system has been upgraded more than once. The API quality classification system divides engine oils into two categories.

Gasoline engine oils (designed for cars, vans, and light trucks with gasoline engines) fall under the "S" (Service) category. There are eleven quality levels under the "S" category (SA, SB, SC, SD, SE, SF, SG, SH, SJ, SL, and SM) corresponding to different engine types and emission control equipment.

Diesel engine oils (designed for heavy-duty trucks and vehicles with diesel engines) fall under the "C" (Commercial) category. There are 13 quality levels under the "C" category (CA, CB, CC, CD, CD-II, CE, CF, CF-2, CF-4, CG-4, CH-4, CI-4, and CJ-4). The digits used in the designations (CD-II, CF-2, CF-4, CG-4, CH-4, CI-4, CJ-4) specify that the particular grade is intended for two- or four- stroke diesel engines respectively.

ACEA Classification

The ACEA oils classification was adopted in 1991 to replace CCMC, which had been in existence since 1972. The ACEA classification embodies the standard requirements for motor oils put forward by the leading European car manufacturers - BMW, DAF, Ford of Europe, General Motors Europe, MAN, Mercedes-Benz, Peugeot, Renault, Rolls-Royce, Rover, Saab-Scania, Volkswagen, Volvo, FIAT etc.

The ACEA specification takes the fullest account of the design features of European engines and their operating modes under European conditions. For individual tests ACEA requirements exceed those of API. Preference should be given to those oil grades which have passed ACEA tests and have been assigned an appropriate quality class according to that specification.

The latest revised ACEA classification came into effect on February 28, 2007. It differs considerably from the previous ones in that it takes into consideration not only the Euro-1, Euro-2 and Euro-3 requirements but also the new requirements of Euro-4. It features a smaller number of motor oil categories – there are only 12, split into three categories:

- A/B – oils for gasoline and diesel engines of passenger cars and light commercial vehicles;
- C – catalyst compatible oils;
- E – oils for use with heavy duty diesel engines.

Sales Network

Country	Status	Name	Address	Contacts
Armenia	Dealer	"Mosesco"	375070, Erevan, Nar-Dosa Str., 75	(37410) 57-75-05; mosesco@rambler.ru
	Dealer	"Vila Trans"	3403, Sjunikskaya oblast, Agarak, Tumanyana Str., 11A	(37428) 62-12-74; vilatrans@yahoo.com
Azerbaijan	Distributor	"LUKOIL-Azerbaijan"	AZ1005, BAKU, Tagiev str., 13	(994) 129-74-102; office@lucoil-az.com
Belarus	Distributor	"LUKOIL-Belarusia"	Minsk, Nemiga Str., 36	(375) 17-208-98-17; 17-210-40-50; morozov@lucoil.by
	Dealer	"AvtoNIKAhim"	220039, Minsk oblast, Minsk region, Deglyarevka, Parkovaya, 7A	(375) 17-222-90-33; avtonikahim@tut.by
	Dealer	"Viland"	220073, Minsk, Skryganov str., 6, office 2411	(375) 17-256-17-90; 17-256-17-91; viland@solo.by
	Dealer	"Belenergohiminvest"	246027, Homel, Barykin str., 291A, build.403.	(375) 0232 460-695; belehi@mail.ru
	Dealer	"GroMin"	230010, Hrodna, Ya. Kupala avenue, 72A	(375) 0152 569-822; 0152 510-127; gromin@inbox.ru; pashke@list.ru
Belgium	Distributor	"LUKOIL-Belgium"	1800 Belgium Vilvoorde Medialaan 50	(32 2) 254-16-07 tel; (32 2) 254-16-27 fax; pierre.paree@eu.lukoil.com
Bulgaria	Distributor	"LUKOIL-Bulgaria"	1303, Republic of Bulgaria, Sofia, Todor Aleksandrov bulv., 42	(3592) 917-41-69 tel; (3592) 917-43-99 fax; NVeleva@lucoil.bg
Croatia	Distributor	"LUKOIL-Croatia"	10000 Hrvatska Zagreb Ulica Grada Vukovara 284	(385) 1 6999 300 tel; (385) 1 6999 301 fax; lubricants@lucoil.hr
Cyprus	Distributor	"LUKOIL-Cyprus"	11 Limassol Avenue, Galatariotis Building 21 12 Aglantzia Nicosia, Cyprus	(357) 7000 1000 tel; (357) 22 81 82 44 fax; lubricants@lucoil.com.cy
Czech Republic	Distributor	LUKOIL Czech Republic, s.r.o.	Kutvirtova 339/5, 150 00 Praha 5 – Radlice, Czech Republic	(420) 257 414-441 tel; (420) 257 414-953 fax; Filip.Balcarek@eu.lukoil.com
Estonia	Distributor	"LUKOIL-Eesti"	11317 Estonia Tallinn Parnu MNT 139E/2-7	(372) 681-15-00 tel; (372) 681-15-01 fax; volter@lucoil.ee
Georgia	Distributor	"LUKOIL-Georgia"	380060, Georgia, Tbilisi, Right Bunder of Mtkvari-river, Territory neighbouring the Gotua Str.	(99532) 962-209; info@lucoil.ge
Hungary	Distributor	"LUKOIL Hungary"	Hungary, H-1145, Budapest, Ujvilag Str., 50-52	(361) 469-65-44; lukoil@lucoil.co.hu; Anatolij.Zolotco@eu.lukoil.com
Kazakhstan	Distributor	"Petrocommerce-Kazakhstan"	050022, Republic of Kazakhstan, Almaty, Kurmangazhy Str., 79	(727) 250-85-98; office@petrocommerce.kz
	Dealer	"Kostanayshtorg"	110000, Republic of Kazakhstan, Kostanay, Al-Farabi pr., 32	(77142) 28-34-36; avtosnab-kz@mail.ru
	Dealer	"KTK"	05000, Republic of Kazakhstan, Almaty, Zhandosov Str., 39	(77272) 72-32-17; alexandr@petrocommerce.kz
	Dealer	"Lana-Auto"	100017, Republic of Kazakhstan, Karagandy, Tereshkova Str., 41	(77212) 565-541; 569-473 lana_auto@mail.kz
	Dealer	"Olimp Auto"	070003, Republic of Kazakhstan, Ust-Kamenogorsk, Kalinin Str., 78	(77232) 503-340; olimp_auto@mail.ru
	Dealer	"OralsbytOil"	090003, Republic of Kazakhstan, Uralsk, microdistrict.4, build. 3/1, office 4	(77112) 229-509; uralsk2@mail.kz
	Dealer	"I.E. Perepelitsa A.A."	150000, Petropavlovsk, Zhabaev Str., 266	(77152) 313-045; 350-140; avtomarket@mail.ru
	Dealer	"Risk"	140013, Republic of Kazakhstan, Pavlodar, Lomov Str., 190	(77182) 601-407; risk01@mail.ru; risk@mail.online.kz
	Dealer	"Spalma-Neft"	050021, Republic of Kazakhstan, Almaty, Pervomaysky per., build.38, office 2	(77272) 59-76-76; spalma_neft@intelsoft.kz
	Dealer	"I.E. Polonskaya E.Ju."	130000, Aktau, microdistrict 11, build. 2	(7292) 431-008; aro-1@mail.ru
Kyrgyzstan	Dealer	"AVT"	Kyrgyzstan, 720044, Bishkek, Mir avenue, 38/3	(996 312) 626-555; avt@elcat.kg
Latvia	Distributor	"LUKOIL Baltija R"	Republic of Latvia, LV-1046, Riga, Alises 3	(371) 67066400; kulakov@lucoil.lv
Lithuania	Distributor	"LUKOIL Baltija"	Lithuania, LT-89101, Mazheikiai, Montutojuo 2	(370) 4-439-61-75; tepalai@lucoil.lt
Macedonia	Distributor	"LUKOIL Macedonia"	Bul. Partizanski odredi br.18, 1000 Skopje Macedonia	(389 2) 329-30-39; 329-30-33 tel; (389 2) 329-30-36; 329-30-21 fax; BAndreev@lucoil.com.mk
Moldova	Distributor	"LUKOIL-Moldova"	2012, Republic of Moldova, Kishinev, Kolumna Str., 92	(373 22) 221-633; nofit@lucoil.md
Montenegro	Distributor	"LUKOIL-Montenegro"	81000 Montenegro Podgorica Ul. Josipa Broza Tita 67	(382-81) 65-87-35 tel; (382-81) 65-87-36 fax; mperisic@lucoil.cg.yu
Poland	Distributor	"LUKOIL Polska"	Ul. Ogrodowa 58, 00-876 Warszawa	(4822) 520-26-80; 520 26 95; k.kaczmarczyk@lucoil.com.pl
Romania	Distributor	"LUKOIL Romania"	Romania, Bucharest, Tlta Vakaresku Str., 6, sector 1	(4021) 232-82-06; dtopal@romania.lukoil.com
Serbia	Distributor	"LUKOIL-Beopetrol"	Serbia, Belgrade, Bulevar Mihaila Pupina, 165d	(381-11) 2220-414; AEpifanov@lucoil.co.yu
Tajikistan	Dealer	"Tadibel"	Dushanbe, Rudaki Str., 140	(992-372) 36-36-15; (992-372) 36-13-29; tadibel@inbox.ru
	Dealer	"P.E. Dodoboev S.M."	Sagdiyskaya obl., Istoravshan, Yakkatal, 75	(992-474) 44-10-69; (992-345) 42-34-43; dodoboev-c@mail.ru
Trans-Dniester	-	"Canel"	3200, Moldova, Bender, Leningradsкая str., 5v	(373 552) 58-206 tel; canel@idknet.com
	-	"Panoton"	Moldova, Tiraspol, 9th January str., 111	(373 553) 96-217 tel; panoton@mail.ru
Turkey	Distributor	"LUKOIL-Eurasia Petrol"	34394 Turkey Istanbul Kore Sehileri Caddesi Yuzbasi Kaya Aldogan Sokak N99 Esentepe - Sisli	(90-212) 282-94-71 tel; (90-212) 282-94-68 (56) fax; fusluer@lucoil.com.tr
Turkmenistan	Dealer	"DIXON Avtotechnics Ltd."	Turkmenistan, Abadan, Bulvar Pobedy, 25-9	993-138-5-5878 tel; abdulaev@online.tm
Ukraine	Distributor	"LUKOIL-Ukraine"	04071 Kiev, Verhniy Val str., 68	38(044) 593-93-12; alulchuk@lucoil.ua
	Dealer	"Farah"	83015, Donetsk, Vatutin avenue, 35	38(062) 337-72-62, 348-73-56; marat@farah.dn.ua; alex@farah.dn.ua
	Dealer	"TD Khort"	69006, Zaporizhzhya, Severnoe Shosse str., 4	38(061) 289-86-64; balt@khort.com; duzhak@khort.com
	Dealer	"Agat-Oil"	02068, Kiev, Knyazhiy Zaton str., 14V	38(044) 572-72-10; agat-oil@ukr.net
	Dealer	"Transportnyye Seti"	07300, Kiev oblast, Vyshgorod, Vatutin str., 69-B	38(044) 492-30-84, 492-30-85; lugay@prommas.kiev.ua
	Dealer	"Torgovy Dom "Lugansk oil"	91047, Lugansk, Oboronnaya str., 34A, office 312	38(0642) 58-84-58, 42-71-53; dz671@rambler.ru
	Dealer	"Lubricants Company "SIOL"	73034, Kherson, Senyavin avenue, 7	38(0552) 337-333, 337-334, 337-335; office@siol.com.ua
	Dealer	"Autotrade"	61072, Kharkov, Tobalskaya str., 42, build. 619	38(057) 720-55-65, 755-14-51; autotrade@hc.scana.com.ua
	Dealer	"Startrek Oil"	58018, Chernovtsy, Kolomyiskaya str., 1A	38(0372) 570-777; startrek@chv.ukrpak.net; romanpasyuk@mail.ru
	Dealer	"AIS"	04119, Kiev, Zoologicheskaya str., 5A	38(044) 538-10-04, 585-40-50; yurchuk_vv@ais.com.ua, savich_ap@ais.com.ua
	Dealer	"Omega-Autopostavka"	62495, Kharkov oblast, Kharkov region, Vasishevo, Promyshlennaya str., 1	38(057) 713-68-86, 713-69-04; office@omega-auto.biz; samovskiy.oleg@omega-auto.biz
	Dealer	"Ukravtozapchast"	02088, Kiev, 1st May str., 1A	38(044) 390-56-01, 564-78-00; chaban@uaz-upi.com
	Dealer	"Trade Line"	03134 Kiev, Simirenko str., 36	38(044) 458-58-98, 402-74-22; kate@tradeline.com.ua
	Dealer	"MBK"	49027, Dnepropetrovsk, 6th Strelkovoy Divisii, 9	38(056) 789-89-41, 38(067) 565-48-10; e.scherbachenko@gmail.com
	Dealer	"I.G.L."	49041, Dnepropetrovsk, Starokodakskaya str., 7	38(056) 373-60-63, 38(056) 785-26-21; energo_ista@a-teleport.com
Uzbekistan	Dealer	"TUKAP ELITE"	100170, Uzbekistan, Tashkent, Ismoil-Ota Str., 1A	(99871) 140-04-25; doniar@mail.ru

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