LUBRICANTS FOR AGRICULTURE AND FARMING

GAZPROM NEFT / GAZPROMNEFT LUBRICANTS

gazpromneft-sm.ru

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GAZPROM NEFT / GAZPROMNEFT LUBRICANTS

GAZPROMNEFT – LUBRICANTS IS THE SUBSIDIARY OF PJSC GAZPROM NEFT, SPECIALIZED IN THE PRODUCTION AND MARKETING OF LUBRICATING OILS, GREASES AND SERVICE FLUIDS.

4 REPRESENTATIVE OFFICES IN RUSSIA, BELARUS, KAZAKHSTAN

4 PRODUCTION SITES

№ 17 IN THE WORLD

№ 1 IN RUSSIA*

>55 COUNTRIES – GEOGRAPHY OF EXPORT

550K TONS PER YEAR LUBRICATING OILS, GREASES AND SERVICE FLUIDS PER YEAR

BUSINESS

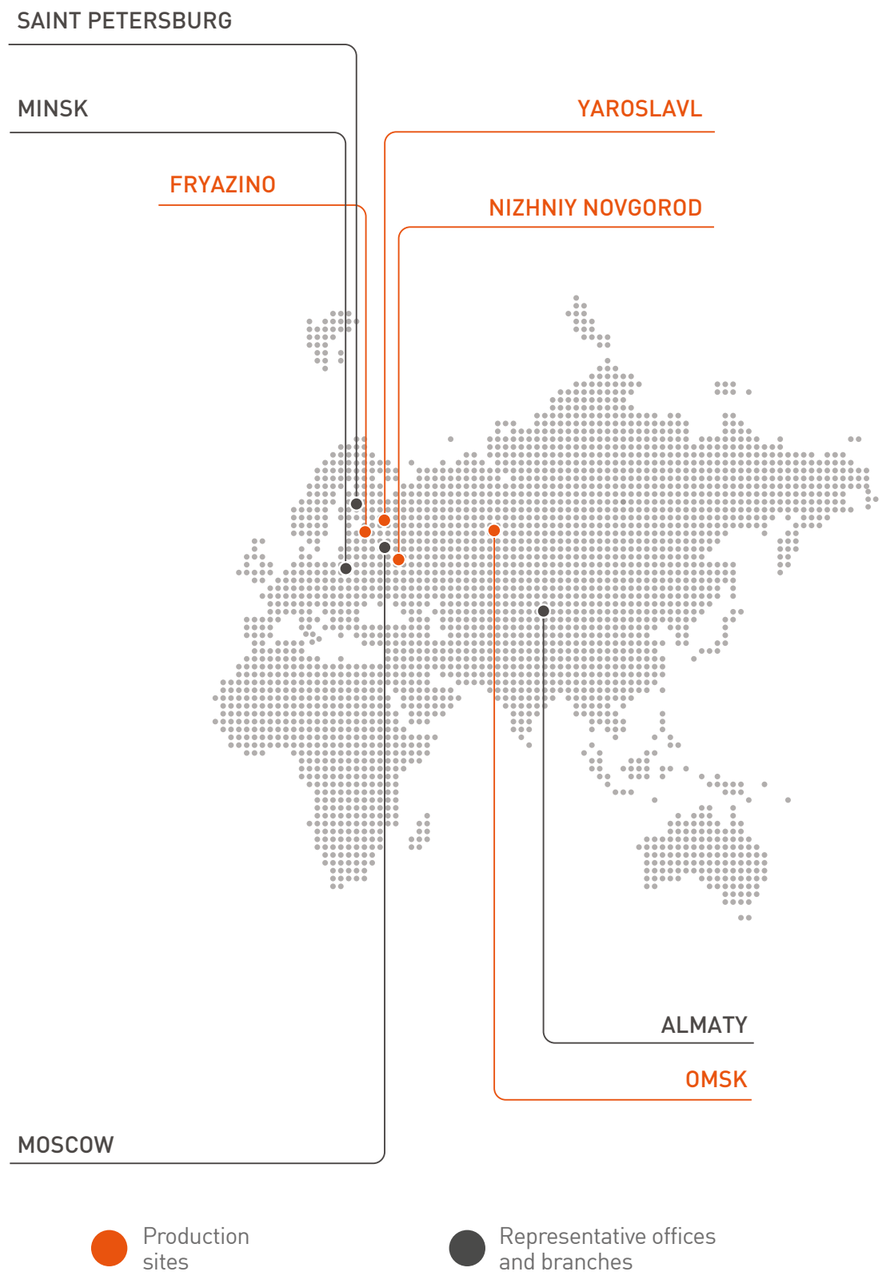
- Production of synthetic and mineral base oils (API groups I, II, III and V)
- Development and production of additive packages
- International service station network G-Energy Service
- The company's management system and production assets comply with the requirements of international standards

ISO 9001 ISO 45001 ISO 14001

SCALE

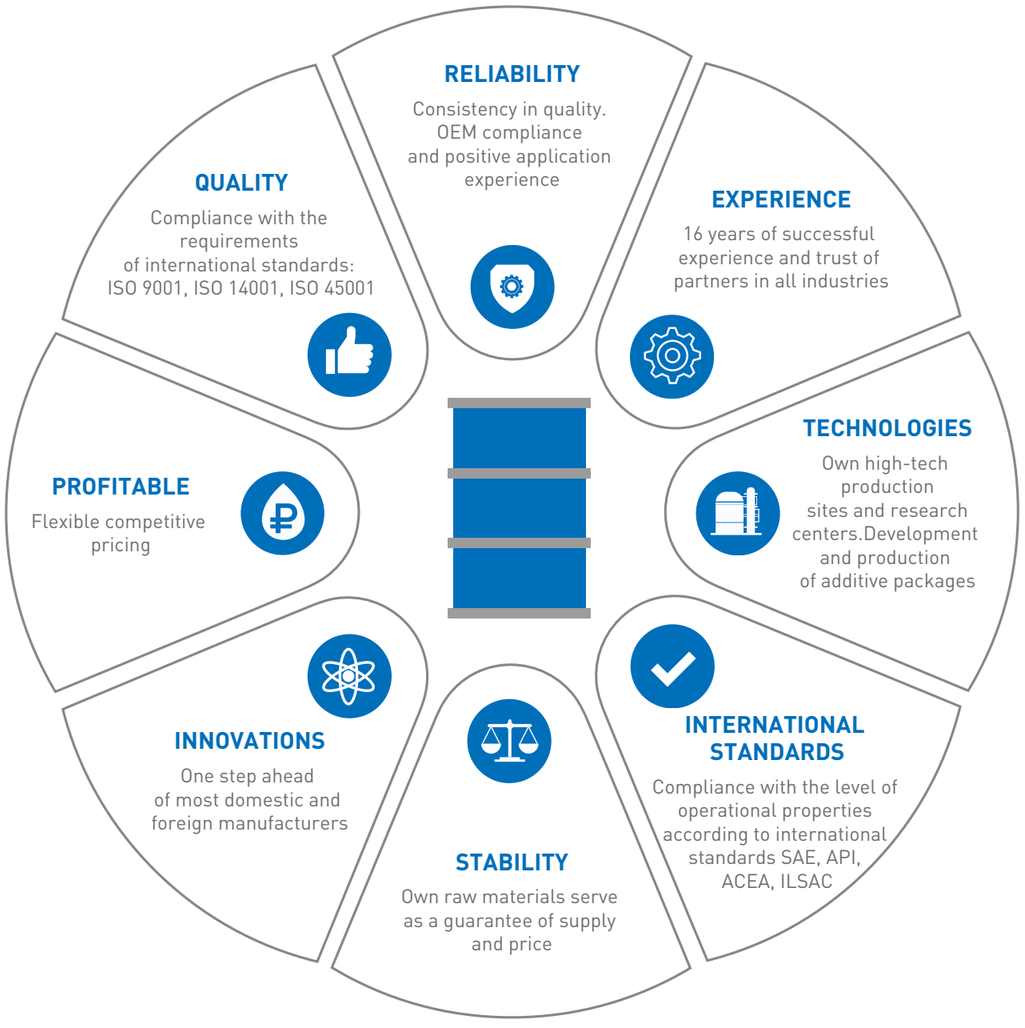
- More than 150 distributors
- More than 1000 products
- 1st place in the Russian marine oil market**

* According to the sales of prepackaged products in 2023
** According to estimates 2022



Gazpromneft – Lubricants Ltd. is a reliable partner offering comprehensive solutions for various industries.

Benefits of working with the company



ENGINE OIL G-PROFI

Lubricants and technical fluids of the G-Profi, G-Box, G-Truck, G-Special and G-Energy brands have improved performance characteristics and exceed the main requirements of equipment manufacturers. They ensure the most efficient operation of equipment in difficult operating conditions.

ENGINE OIL GAZPROMNEFT

Gazpromneft oils, plastic lubricants and technical fluids meet all requirements for modern lubricants. They ensure the reliable operation of equipment.

Gazpromneft – Lubricants Ltd. is focused on the development and implementation of a range of specialized lubricants that meet global quality standards and the requirements of leading manufacturers of industrial equipment and machinery.

This catalogue presents a series of motor, transmission, hydraulic, gear, compressor, and other oils, lubricants, and technical fluids intended for use in Agriculture and Farming industry enterprises.

Operating conditions of lubricants for agriculture and farming

1. **Contamination of the hydraulic system due to mounted equipment exchange** → Lubricants help keeping your engine and other equipment's parts clean
2. **Presence of dust, dirt and residues of processed plants**
3. **Heavy duty operations** → Prevent wear and micropitting
4. **Non-stop seasonal operations** → Oil provides high oxidation stability and protection during the entire drain interval
5. **Risk of high-sulfur fuel use** → Surplus alkalinity (TBN) diminishes the risk of premature oil aging induced by excessive sulfur derived acid formation

Specifications of engine oils

Compliance of G-Profi engine oils with international specifications

Specification		G-Profi GTS		G-Profi GT		G-Profi GT LA	G-Profi MSK				G-Profi FLI	G-Profi MSI Plus	G-Profi MSI			G-Profi MSH	
SAE Grade		5W-30	10W-40	5W-30	10W-40	10W-40	5W-30	5W-40	10W-30	15W-40	15W-40	15W-40	5W-40	10W-30	10W-40	10W-40	15W-40
ACEA	E4	✓	✓	✓	✓	✓					✓						
	E6					✓	✓										
	E7	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	E9					✓	✓	✓	✓	✓							
API	CH-4															✓	✓
	CI-4	✓	✓	✓	✓						✓	✓	✓	✓	✓		
	CJ-4					✓	✓	✓	✓	✓							
	CK-4					✓	✓	✓	✓	✓							
	SG																
	SL											✓	✓		✓	✓	✓
	SN						✓	✓									
Global	DHD-1	✓	✓	✓	✓						✓	✓	✓	✓	✓		
JASO	DH-1	✓	✓	✓	✓						✓	✓		✓			
	DH-2					✓	✓	✓	✓								
Allison	TES-439									✓							

Specifications valid through 2024. Check www.g-energy.org for actual specifications/approvals and detailed information.

Compliance of G-Profi engine oils with OEM specifications

Specification		G-Profi GTS		G-Profi GT		G-Profi GT LA	G-Profi MSK				G-Profi FLI	G-Profi MSI Plus	G-Profi MSI			G-Profi MSH	
SAE Grade		5W-30	10W-40	5W-30	10W-40	10W-40	5W-30	5W-40	10W-30	15W-40	15W-40	15W-40	5W-40	10W-30	10W-40	10W-40	15W-40
Caterpillar	ECF-1a					✓						✓		✓	✓	✓	✓
	ECF-2					✓		✓	✓	✓	✓	✓		✓	✓	✓	✓
	ECF-3							✓	✓	✓							
Cummins	CES 20076/77	✓	✓	✓	✓						✓	✓		✓	✓	✓	✓
	CES 20078	✓	✓	✓	✓	✓					✓	✓		✓	✓		
	CES 20081					✓		✓	✓	✓							
	CES 20086					✓	✓	✓	✓	✓							
Deutz	DQC II															✓	✓
	DQC III										✓	✓		✓	✓		
	DQC III-LA							✓	✓	✓							
	DQC IV	✓	✓	✓	✓												
	DQC IV-LA		✓			✓											
MTU	Cat. 2											✓		✓	✓	✓	✓
	Cat. 2.1					✓		✓	✓	✓							
	Cat. 3	✓	✓	✓	✓	✓					✓						
	Cat. 3.1					✓											
Komatsu				✓	✓							✓		✓	✓	✓	✓
Volvo	VDS-2															✓	✓
	VDS-3	✓	✓	✓	✓	✓					✓	✓	✓	✓	✓		
	VDS-4							✓	✓	✓							
	VDS-4.5					✓	✓	✓	✓	✓							
MACK	EO-M Plus														✓	✓	✓
	EO-N	✓	✓	✓	✓	✓					✓	✓		✓	✓		
	EO-O PP							✓	✓	✓							
	EOS-4.5					✓	✓	✓	✓	✓							
MAN	M 3275					✓						✓	✓	✓	✓	✓	✓
	M 3277	✓	✓	✓	✓												
	M 3377			✓	✓												
	M 3477					✓											
	M 3575							✓	✓	✓							
	M 3677						✓										
	M 3775							✓	✓	✓							
MB	228.3											✓	✓	✓	✓	✓	✓
	228.31					✓		✓	✓	✓							
	228.5	✓	✓	✓	✓						✓						
	228.51					✓	✓										
Renault Trucks	RLD-2	✓	✓	✓	✓	✓	✓				✓	✓		✓	✓		
	RLD-3					✓	✓	✓	✓	✓							
Scania	LDF 3	✓	✓			✓											
	LDF 4						✓										
	Low Ash					✓											
JSC Avtodizel (YAMZ)				✓	✓	✓						✓	✓		✓	✓	✓
JSC Kamaz												✓			✓	✓	✓
JSC TMZ				✓	✓	✓						✓			✓	✓	✓

Specifications valid through 2024. Check www.g-energy.org for actual specifications/approvals and detailed information.

Compliance of Gazpromneft engine oils with OEM requirements and international classifications

Specification		Gazpromneft Diesel Ultra			Diesel Ultra Plus	Diesel Ultra LA	Diesel Ultra CS	Gazpromneft Diesel Premium				Gazpromneft Diesel Prioritet				Gazpromneft Diesel Extra			Gazpromneft Turbo Universal	
SAE Grade		5W-30	10W-40	15W-40	10W-40	10W-40	10W-40	5W-40	10W-30	10W-40	15W-40	10W-30	10W-40	15W-40	20W-50	10W-40	15W-40	20W-50	40, 50	15W-40	20W-50
ACEA	E7	✓	✓	✓		✓	✓	✓	✓	✓	✓										
	E4	✓	✓	✓	✓																
	E6					✓															
	E9					✓	✓														
API	CD																				✓
	CF																		✓		
	CF-4															✓			✓		
	CH-4												✓								
	CI-4	✓	✓	✓	✓	✓		✓	✓	✓	✓										
	CJ-4						✓														
	CK-4						✓														
	SG															✓					
	SJ												✓								
	SL							✓	✓	✓	✓										
	SN						✓														
Caterpillar	ECF-1a							✓	✓	✓	✓										
	ECF-2						✓	✓	✓	✓	✓										
	ECF-3						✓														
Cummins	CES 20076	✓	✓	✓	✓	✓		✓	✓	✓	✓		✓								
	CES 20077				✓			✓	✓	✓	✓										
	CES 20078	✓	✓	✓	✓	✓		✓	✓	✓	✓										
	CES 20081						✓														
	CES 20086						✓														
Deutz	DQC III							✓	✓	✓	✓										
	DQC IV	✓	✓																		
	DQC-III LA						✓														
	DQC-IV LA					✓															
Global	DHD-1	✓	✓	✓	✓			✓	✓	✓	✓										
JASO	DH-1	✓	✓	✓	✓			✓	✓	✓	✓										
	DH-2					✓	✓														
MACK	EO-M Plus							✓	✓	✓	✓										
	EO-N	✓	✓	✓	✓	✓		✓	✓	✓	✓										
	EOS-4.5						✓														
MAN	M 3275							✓	✓	✓	✓	✓									
	M 3277	✓	✓		✓																
	M 3477					✓															
	M 3575						✓														
	M 3775						✓														
MB	228.3							✓		✓	✓										
	228.31						✓														
	228.5	✓	✓		✓																
	228.51					✓															
MTU	Cat. 2							✓	✓	✓	✓	✓									
	Cat. 2.1						✓														
	Cat. 3	✓	✓	✓	✓																
	Cat. 3.1					✓															
Renault Trucks	RLD-2	✓	✓	✓	✓	✓		✓	✓	✓	✓										
	RLD-3						✓														
Scania	LDF-3	✓	✓																		
Volvo	VDS-3	✓	✓	✓	✓	✓		✓	✓	✓	✓										
	VDS-4.5						✓														
JSC Avtodizel (YAMZ)		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓				✓				✓	
JSC Kamaz		✓	✓		✓	✓		✓	✓	✓	✓	✓				✓				✓	
JSC TMZ								✓	✓	✓	✓	✓				✓				✓	

Specifications valid through 2024. Check www.g-energy.org for actual specifications/approvals and detailed information.

Compliance of UTTO, STOU and TO-4 type oils with OEM requirements and international classifications

Specification		G-Special STOU	G-Special STOU	G-Special UTTO Premium	G-Special UTTO	G-Special TO-4
SAE Grade		10W-30	10W-40	10W-30	10W-30	10W, 30, 50
ACEA	E3	✓	✓			
API	CD, CE, CF-4, CG-4, SE, SF, CF	✓	✓			
	GL-4	✓	✓	✓	✓	
MB	227.1	✓	✓			
	228.1		✓			
Allison	C-4	✓	✓	✓	✓	✓
Caterpillar	TO-2	✓	✓	✓		
	TO-4					✓
Fiat	AF87		✓			
Ford	ESN M2C 134-A, 159 B&C, 86 B	✓				
	ESN M2C 134-D, 86 B/C			✓		
	WSS-M2C159B/C, M2C86B		✓			
Ford New Holland	NH 82009201/82009202	✓				
	NH 8209203		✓			
John Deere	JDM J20C/D			✓	✓	
	JDM J27	✓	✓			
Kubota	UDT			✓		
MAN	271	✓	✓			
Massey Ferguson	CMS M1127A, M1139	✓				
	CMS M1135	✓		✓		
	CMS M1141			✓		
	CMS M1143			✓	✓	
	CMS M1144	✓	✓			
	CMS M1145	✓	✓	✓	✓	
Case New Holland	CNH MAT 3505, 3506, 3509, 3510, 3526, 3540			✓	✓	
	CNH MAT 3525			✓	✓	
	NH 024C		✓			
	NH 410B	✓				
	NH 420A	✓				
Volvo	97303 (WB 101)			✓	✓	
ZF	TE-ML 03C					✓
	TE-ML 03E, 05F			✓	✓	
	TE-ML 05K, 06B, 06C, 07B, 07D		✓			
	TE-ML 06K			✓		
	ZF TE-ML 07F (only SAE 30 and 50)					✓
	TE-ML 17E, 21F			✓	✓	
Other	Sperry Vickers/Eaton I-280-S/ M2950S; Sauer-Sundstrand/ Danfoss Hydro Static Trans Fluid	✓	✓			

Specifications valid through 2024. Check www.g-energy.org for actual specifications/approvals and detailed information.

OEM requirements

Gazpromneft – Lubricants invested significant intellectual and financial resources to achieve the best performance for each of its products according to claimed specifications, providing an additional performance margin for enhanced machinery protection. The company's products are global competitors to other advanced and international analog brands.

Compliance of oils and greases with OEM requirements and international specifications

4.1. Engine oils

SAE		5W-30	10W-30	xxW-40	5W-30	10W-40	15W-40
Requirements		**API CJ-4** **ACEA E9, E7, E6** MB 228.51, MAN M 3677, Deutz DQC IV-10 LA, Caterpillar ECF-3, Cummins CES 20081	**API CJ-4** **ACEA E9** MB 228.31, Caterpillar ECF-3	**API CJ-4** **ACEA E9, E7** MB 228.31, Caterpillar ECF-1a, 2, 3	ACEA E4 MB 228.5, MAN M 3277	**ACEA E4** MB 228.5, Deutz DQC III, MAN M 3277	**API CI-4/CH-4** **ACEA E7, E5** MB 228.3, Cummins CES 20078, 77, 76
Proper OEM product CASE				UNITEK 10W-40			No.1 ENGINE OIL 15W-40
Proper OEM product NEW HOLLAND							MASTERGOLD HSP 15W-40
Proper OEM product CLAAS		AGRIMOT SYNTEC FE 5W-30	AGRIMOT PROTEC FE 10W-30	AGRIMOT PROTEC 10W-40	AGRIMOT ULTRATEC FE 5W-30	AGRIMOT ULTRATEC 10W-40	AGRIMOT SDX 15W-40
Proper OEM product JOHN DEERE			Plus-50 II 10W-30	Plus-50 II 15W-40 (above -20 °C)			Plus-50 15W-40
Proper Gazpromneft –Lubricants product	Top-grade	G-Profi MSK 5W-30	G-Profi MSK 10W-30	G-Profi MSK 15W-40 (above -20 °C) G-Profi MSK 5W-30 (below -20 °C)	G-Profi GTS 5W-30	G-Profi GTS 10W-40	G-Profi MSI Plus 15W-40
	Mainstream				Gazpromneft Diesel Ultra 5W-30	Gazpromneft Diesel Ultra 10W-40	Gazpromneft Diesel Premium 15W-40

10W-30	15W-40	10W-30	15W-40	20W-50	10W	15W-40
API CI-4/CH-4 **ACEA E7, E5** MB 228.3, Cummins CES 20078, 77, 76	**API CH4/SJ**	**API CF-4/SG**	**API CF-4/SG**	**API CF-4/SG**	**API CE**	**API CD**
No.1 ENGINE OIL 10W-30		ENGINE OIL 10W-30	ENGINE OIL 15W-40	ENGINE OIL 20W-50	ENGINE OIL 10	PREMIUM 15W-40
MASTERGOLD HSP 10W-30		SUPER GOLD 10W-30	SUPER GOLD 15W-40	SUPER GOLD 20W-50	SUPER 10	
AGRIMOT SDX FE 15W-30						
	Torq-Gard 15W-40					
	G-Profi MSH 15W-40		G-Profi MSF 15W-40		G-Profi MSF 10W	
Gazpromneft Diesel Premium 10W-30	Gazpromneft Diesel Prioritet 15W-40	Gazpromneft Diesel Prioritet 10W-30 (exceeds requirements)	Gazpromneft Diesel Extra 15W-40	Gazpromneft Diesel Extra 20W-50		Gazpromneft Turbo Universal 15W-40 (diesels only)

4.2. Transmission oils

SAE	Requirements	Proper OEM product CASE	Proper OEM product NEW HOLLAND	Proper OEM product CLAAS	Proper OEM product JOHN DEERE	Proper Gazpromneft – Lubricants product	
						Top-grade	Mainstream
UTTO							
10W-30	**MAT 3540**	HY-TRAN Ultraction	MASTERTRAN Ultraction				
	MAT 3505 (MS 1209)	HY-TRAN Ultra	MASTERTRAN				
	MAT 3525	NEXPLORE					G-Special UTTO 10W-30
	MS 1210, ALLISON C-4	TCH Fluid (SAE 10W)					
	API GL 4 NH 410 B ZF TE-ML 03E, 05F, 17E, 21F		MULTI G				
	API GL 4 NH 420 A		MULTI F (SAE 20W-30)			G-Special UTTO Premium 10W-30	
	API GL-4 Massey Ferguson CMS M1145/M1143, John Deere JDM J20C, Ford M2C 134D/FHNA 2C 201.00, ZF TE-ML 03E/ 05F/17E/21F			AGRISHIFT GA 12			G-Special UTTO 10W-30
	API GL-4 Massey Ferguson CMS M1141/M1135, Ford M2C 86B/86C			AGRISHIFT THFI			
	JDM J20C/JDM J20D				Hy-Gard		
STOU							
10W-40	**API GL-4 ZF TE-ML 06B, 07B**	MULTI Tractor (meets ZF TE-ML 06D, 06F)	VT SPECIAL (meets ZF TE-ML 06F)			G-Special STOU 10W-40	
TO-4							
50	**CAT TO-4**	TRF SAE 50	TBL			G-Special TO-4 50	

SAE	Requirements	Proper OEM product CASE	Proper OEM product NEW HOLLAND	Proper OEM product CLAAS	Proper OEM product JOHN DEERE	Proper Gazpromneft – Lubricants product	
						Top-grade	Mainstream
ATF							
	ATF DEXRON II D	A.T.F.	HYDRODEX			G-Box ATF DX II	Gazpromneft ATF DX II
	ATF DEXRON III ZF TE-ML 03D, 02F, 14A	TRANS XHD	HYDRODEX 3			G-Box Expert ATF DX III	Gazpromneft ATF DX III
Gear transmissions							
75W-90	**API GL-4/GL-5**			AGRISHIFT SYN FE 75W-90		G-Box GL-4/ GL-5 75W-90	Gazpromneft GL-4/GL-5 75W-90
80W-90	**API GL-5**	GEAR 135 H EP 80W-90	HYPOIDE 90	AGRISHIFT MT 80W-90	Extreme-Gard 80W-90	G-Truck GL-5 80W-90	Gazpromneft GL-5 80W-90
85W-140		GEAR 135 H EP 85W-140	HYPOIDE 140		Extreme-Gard 85W-140	G-Truck GL-5 85W-140	Gazpromneft GL-5 85W-140
80W-90	**API GL-5 (Limited Slip)**	GEAR 135 H EP LS 80W-90, AXLEPOWER	HYPOIDE 90 LS, AXF 80W-90	AGRISHIFT BLS 80W-90	Extreme-Gard LS90	G-Truck LS 80W-90	
80W-90	**API GL-4**	TRAMEC S				G-Truck GL-4 80W-90	

4.3. Universal lubricants

SAE	Requirements	Proper OEM product CASE	Proper OEM product NEW HOLLAND	Proper Gazpromneft – Lubricants product
xxW-30	**API GL 4, API CE ZF TE-ML 06B, 07B**	SUPER Universal 15W-30		G-Special STOU 10W-30
		SUPER Universal 10W-30	UNIVERSAL 10W-30	

4.4. Hydraulic oils

ISO VG	Requirements	Proper OEM product CASE	Proper OEM product NEW HOLLAND	Proper OEM product CLAAS	Proper OEM product JOHN DEERE	Proper Gazpromneft – Lubricants product	
						Top-grade	Mainstream
46	**DIN 51524-3 HVLP**	HYDRAULIC Excavator Fluid	HYDROSYSTEM 46 HV	AGRIHYD HV 46	Hydrau-Gard 46 Plus	G-Special Power HVLP-46 G-Special Hydraulic HVLP-46	Gazpromneft Hydraulic HVLP-46
68	**DIN 51524-3 HVLP**	AW Hydraulic Fluid 68 HV	HYDROSYSTEM 68 HV			G-Special Hydraulic HVLP-68	Gazpromneft Hydraulic HVLP-68
46	**DIN 51524-3 HVLPD**			AGRIHYD HVLPD- 46		G-Special Hydraulic HVLPD-46	
32	**DIN 51524-2 HLP**	AW Hydraulic Fluid 32	HYDROSYSTEM 32			G-Special Power HVLP-32	Gazpromneft Hydraulic HLP-32
46	**DIN 51524-2 HLP**	AW Hydraulic Fluid 46				G-Special Power HVLP-46	Gazpromneft Hydraulic HLP-46
68	**DIN 51524-2 HLP**		HYDROSYSTEM 68				Gazpromneft Hydraulic HLP-68
46	**DIN 51524 HLP, Zn Free**		HI-TECH 46 LL				Gazpromneft Hydraulic HZF-46

4.5. Greases

NLGI	Thickener	EP/solid additives	Proper OEM product CASE	Proper OEM product NEW HOLLAND	Proper OEM product CLAAS	Proper OEM product JOHN DEERE	Proper Gazpromneft – Lubricants product
2	**Lithium-Calcium soap**	**EP additives**	MULTI-PURPOSE Grease 251H EP	GR 9			Gazpromneft Grease LTS 2
		EP additives + Molybdenum disulfide	MOLY Grease				Gazpromneft Grease LTS Moly EP 2
	Lithium Complex soap	**EP additives**	PREMIUM Grease EP2	HI-TEMP GREASE	AGRIGREASE EP 2	Grease-Gard Premium Plus	Gazpromneft Grease LX EP 2
	Lithium / Lithium-Calcium soap	**EP additives + Molybdenum disulfide**		GR 75 MD			Grease LTS Moly EP2
	Lithium soap	**EP additives**				Grease-Gard Premium	Gazpromneft Grease L EP 2

Instructions of product application for agricultural and farming machinery

Tractors

Units	JOHN DEERE		CASE		NEW HOLLAND			CLAAS	
	4000, 6D, 7030, 6M series	8R, 9R	Puma, Maxxum series	Magnum	T6000, T7000, TS series	T8	T9	XERION	AXION, ARION, AXOS
Engine	G-Profi MSI Plus 15W-40 Engines with DPF: G-Profi MSK 15W-40/G-Profi GT LA 10W-40							G-Profi GT 10W-40/ G-Profi MSI Plus 15W-40 Engines with DPF: G-Profi MSK 15W-40/ G-Profi GT LA 10W-40	
Hydraulic system	G-Special UTTO 10W-30				G-Special UTTO Premium 10W-30			G-Special Hydraulic HVLPD-46	G-Special UTTO Premium 10W-30
Gearbox	G-Special UTTO 10W-30				G-Special UTTO Premium 10W-30	G-Special UTTO Premium 10W-30	G-Special UTTO Premium 10W-30	G-Special UTTO Premium 10W-30 (excluding variators)	
Differentials	G-Special UTTO 10W-30		G-Special UTTO Premium 10W-30	With self-block G-Truck LS 85W-140		G-Truck GL-5 85W-140		G-Truck LS 80W-90	
Wheel hub reducers			G-Special UTTO Premium 10W-30	Without self-block G-Truck GL-5 85W-140					
Greases	Load on each greasing point		up to 3 000 N		Gazpromneft Grease LX EP 2. Application: Multipurpose grease for units requiring no solid additives.				
			up to 2 800 N		Gazpromneft Grease LTS 2. Application: Multipurpose grease for units requiring no solid additives.				

Information above supplied for reference only. Check the equipment instruction manual to establish lubrication routines customized for specific equipment and conditions.

Harvesterse

Units		JOHN DEERE	CASE	NEW HOLLAND	CLAAS*		
		Series S, W	Axial-Flow	Series CR, CX	Series LEXION	Series TUCANO	Series JAGUAR
Engine (lubricant)		G-Profi MSI Plus 15W-40 DPF equipped: G-Profi MSK 15W-40/G-Profi GT LA 10W-40 engines			G-Profi GT 10W-40/G-Profi MSI Plus 15W-40 (depending on equipmental model and assembly)		
Hydraulic system (lubricant)		G-Special UTTO Premium 10W-30 G-Special Power HVLP-46 G-Special Hydraulic HVLP-46			G-Special Hydraulic HVLPD-46		
Transmission	Units	Hydrostatic drive, main gearbox	Hydrostatic transmission, power take off, feedroll gearbox, feeder gearbox	Hydrostatic drive, main gearbox	Manual transmission, final drive, threshing drum, planetary gears, transferbox, wheel reductions	Manual transmission, final drive	Carraro, Siege differentials, feeder unit transfer gearbox, distribution gearbox, feedroll gearbox, final drives, steering axle
	Lubricant	G-Special UTTO Premium 10W-30			G-Truck GL-5 80W-90		
	Units	Manual transmission, countershaft drive, final reduction, feeder house gearcase, separator drive	Final drives, elbow gearbox, unloading lower gearbox, traction gearbox	Traction gearbox, feedroll gearbox, unloading drive gearbox, final drives	Rotor gearbox, grain tank unloading gear, steering axle	Drum speed reducer, rotor gearbox	Manual gearbox, 4-TRAC differential
	Lubricant	G-Truck GL-5 80W-90 или G-Truck GL-5 85W-140 (depending on a model)			G-Truck GL-4 80W-90		
Greases	Load on greasing point	up to 3 000 N	Gazpromneft Grease LX EP 2. Application: multi-purpose grease for applications requiring no solid additives.				
		up to 2 800 N	Application: multi-purpose grease for applications requiring no solid additives.				

* Depending on the year of production recommended transmission lubricant units may vary.
Before choosing GL-4 or GL-5 check the instruction manual supplied by the original equipment manufacturer.

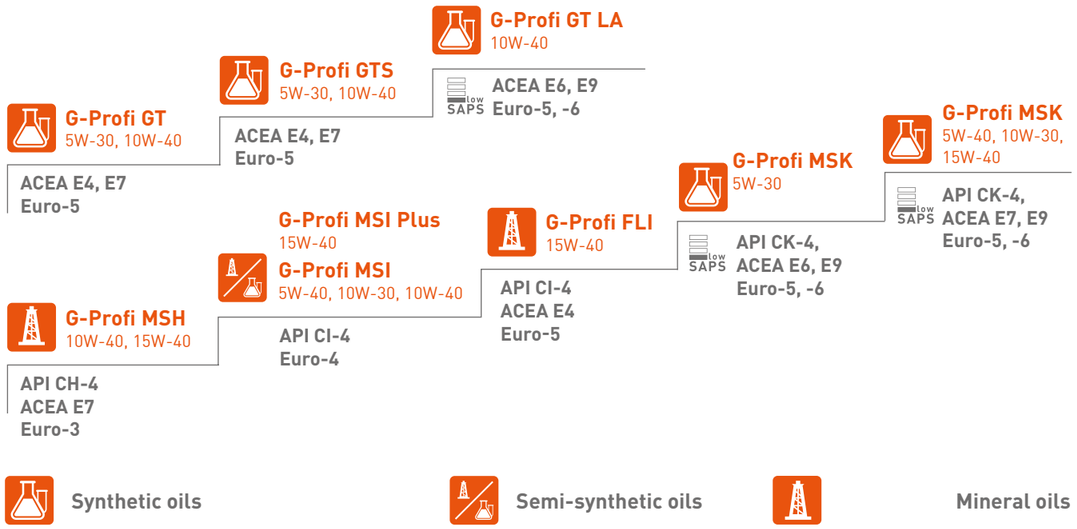
Information above supplied for reference only. Check the equipment instruction manual to establish lubrication routines customized for specific equipment and conditions.

Premium performance lubricants for agricultural and farming machinery

G-Profi, G-Truck, G-Energy and G-Special premium performance lubricants provide reliable protection of agriculture and farming equipment subjected to harsh operating conditions and extreme loads.

- High system cleanliness
- Oxidative stability
- Corrosion prevention
- Viscosity stability
- Anti-wear protection
- Reliable equipment operation

6.1. Engine oils



Engine oils

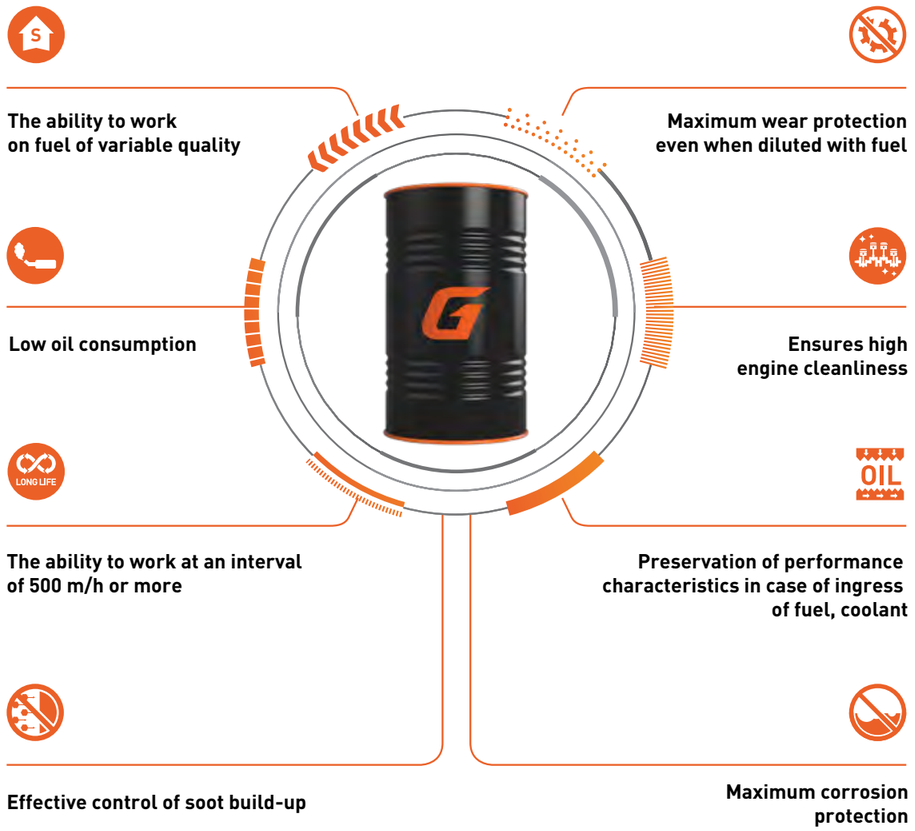
Name, SAE Grade	Aftertreatment system compatibility		Gas engine compatibility	Antiwear protection	Corrosion inhibition	Sludge control	High-sulfur fuel compatibility	Soot control	Fuel economy
	EGR+ SCR	DPF							
G-Profi GTS									
5W-30	✓			■■■	■■■	■■■	■■■■	■■■	✓
10W-40	✓			■■■	■■■	■■■	■■■■	■■■	
G-Profi GT									
5W-30	✓			■■■	■■■	■■■	■■■	■■■	✓
10W-40	✓			■■■	■■■	■■■	■■■	■■■	
G-Profi GT LA									
10W-40	✓	✓	✓	■■	■■■	■■■	■■■	■■	
G-Profi MSK 5W-30 10W-30	✓	✓	✓	■■■	■■■	■■	■	■■■	✓
5W-40, 15W-40	✓	✓	✓	■■■	■■■	■■	■	■■■	
G-Profi MSI Plus									
15W-40	✓			■■■	■■■	■■	■■■	■■■	
G-Profi MSI									
5W-40, 10W-30,10W-40	✓			■■	■■	■■	■■	■■	
G-Profi MSH									
10W-40, 15W-40				■■	■■	■■	■	■■	

* Fuel economy compared to xxW-40 viscosity grade products

G-Profi FLI 15W-40

All-season synthetic UHPD (Ultra High Performance Diesel) class engine oil with an extended replacement interval. Meets the requirements of API CI-4, ACEA E4/E7 category. It is designed to achieve maximum efficiency of the engines of specialized equipment.

SPECIFICATIONS:
ACEA E4; ACEA E7; API CI-4; Caterpillar ECF-2; Cummins CES 20078; Deutz DQC III-18; Global DHD-1; JASO DH-1; MACK EO-N; MB 228.5; MTU Cat. 3; Renault Trucks RLD-2; Volvo VDS-3.



Specifications valid through 2024. Check www.g-energy.org for actual specifications/approvals and detailed information.

G-Profi GT 5W-30, 10W-40

All-season synthetic motor oils with extended drain interval for use in heavy-duty diesel engines of logging, auxiliary cargo and special-purpose machinery. Possess enhanced anti-wear properties, excellent thermal oxidative stability and maximum ability to reduce the negative impact of soot.

SPECIFICATIONS:
ACEA E4; ACEA E7; API CI-4; Caterpillar ECF-2; Cummins CES 20078; Deutz DQC IV-18; Global DHD-1; Iveco 18-1804 TFE; JASO DH-1; MACK EO-N; MAN M 3277; MB 228.5; MTU Cat. 3; Renault Trucks RLD-2; Scania LDF 3; Volvo VDS-3.

Advantages of G-Profi GT 5W-30, 10W-40

High alkalinity reserve	Neutralizes acids formed in the combustion chamber, lowering maintenance costs.
Enhanced anti-wear properties	Formation of protective layers on the sliding surfaces, reducing unscheduled downtime.
High thermal stability	Maintains adequate lubricating properties during elevated temperature operations, maximizing drain intervals.
Prevents detrimental soot accumulation	Diminishes soot ingress induced oil thickening, maintaining the engine's efficiency.
Outstanding corrosion inhibition	Plain bearing protection, reducing maintenance costs

Specifications valid through 2024. Check www.g-energy.org for actual specifications/approvals and detailed information.

G-Profi MSI Plus 15W-40

SHPD (Super High Performance Diesel)
category oil is meant to be applied on heavy-duty agricultural, general purpose and specialized machinery's diesel engines. Robust anti-wear performance. Enhanced detergency/ dispergency provides excellent soot control properties at any ambient temperature.

SPECIFICATIONS:
ACEA E7; API CI-4; API SL; Caterpillar ECF1a/2; Cummins CES 20076/77/78; Detroit Diesel DDC 93K215; Deutz DQC III-18; Global DHD-1; JASO DH-1; Komatsu; MACK EO-N; MAN M 3275-1; MB 228.3; MTU Cat. 2; Renault Trucks RLD-2; Volvo VDS-3; JSC Avtodizel (YAMZ); JSC Kamaz; JSC TMZ.

Advantages of G-Profi MSI Plus 15W-40

High oxidation stability	Maintains optimal lubricating properties over the entire drain, extending drain intervals, and reducing maintenance costs
Outstanding dispersing-system cleaning potential	Reduces deposit and sludge formation on the engine's components, reducing maintenance and repair costs
Alkalinity (TBN) reserve	Neutralization of fuel generated acids formed by the internal combustion process, reducing unscheduled maintenance and downtime costs
Diminished detrimental effect of the soot	Reduced soot related oil thickening, allowing for an optimal oil pressure all over the lubrication system
Viscosity stability in high temperature operating conditions	Reliable lubrication in high temperature and extreme load operating conditions, reducing downtime
Outstanding corrosion inhibiting property	Protection of the engine's components against corrosion, reducing part procurement costs

Specifications valid through 2024. Check www.g-energy.org for actual specifications/approvals and detailed information.

- **Enhanced alkalinity (TBN) and reinforced detergency properties.**
- **Extended drain intervals are permissible.**

G-Profi GTS 5W-30

Synthetic energy saving oil for diesel engines operated according to Euro-5 exhaust gas treatment requirements in a wide temperature range (no diesel particulate filter (DPF) compatibility).

SPECIFICATIONS:
ACEA E4; ACEA E7; API CI-4; Cummins CES 20078; DAF Extended; Drain; Deutz DQC IV-18; Global DHD1; Iveco 18-1804 TFE; JASO DH-1; MACK EO-N; MAN M 3277; MB 228.5; MTU Cat. 3; Renault Trucks RLD; Renault Trucks RLD-2; Voith Retarder Oil Class A; Volvo VDS-3.

Confirmed product compliance with Scania LDF-3 requirements.

G-Profi GTS 10W-40

Synthetic diesel engine oil according to Euro-5 exhaust gas treatment requirements operated in a wide temperature range (no diesel particulate filter (DPF) compatibility).

SPECIFICATIONS:
ACEA E4; ACEA E7; API CI-4; Cummins CES 20078; DAF Extended Drain; Deutz DQC IV-18; Global DHD1; JASO DH-1; MACK EO-N; MAN M 3277; MB 228.5; MTU Cat. 3; Renault Trucks RLD; Renault Trucks RLD-2; Volvo VDS-3.

Confirmed product compliance with Scania LDF-3 requirements.

G-Profi GT LA 10W-40

Synthetic low-ash energy saving engine oil according to Euro-5, 6 environmental requirements operated in a wide temperature range. Compatible with all exhaust gas aftertreatment systems. Applicable for lubrication of some gas powered engines.

SPECIFICATIONS:
ACEA E4; ACEA E6; ACEA E7; ACEA E9; API CJ-4; API CK-4; Caterpillar ECF-3; Cummins CES 20081; Cummins CES 20086; DAF Extended Drain; Detroit Diesel DDC 93K222; Deutz DQC IV-18 LA; JASO DH-2; MACK EO-O PP; MACK EOS-4.5; MAN M 3271-1; MAN M 3477; MAN M 3775; MB 228.31; MB 228.51; MB 228.52; MTU Cat. 2.1; MTU Cat. 3.1; Renault Trucks RLD-3; Volvo VDS-4; Volvo VDS-4.5; Scania Low Ash.

G-Profi MSK 5W-30, 5W-40, 10W-30, 15W-40

All-season synthetic (SAE 5W-30, 5W-40, 15W-40) and synthetic technology-based (SAE 10W-30) engine oils for the most modern engines of cargo, quarry and special equipment (environmental class Euro-5, -6). Due to its low ash content (low-SAPS), it is compatible with all exhaust gas aftertreatment systems. They can be used in some gas engines.

5W-30 **SPECIFICATIONS:**
ACEA E6; ACEA E9; API CK-4; API SN; Caterpillar ECF-3; Cummins CES 20086; Detroit Diesel DDC 93K222; JASO DH-2; MACK EOS-4.5; MAN M 3677; MB 228.51; Renault Trucks RLD-3; Volvo VDS-4.5.

Confirmed product compliance with Scania LDF-4 requirements.

5W-40 **SPECIFICATIONS:**
ACEA E7; ACEA E9; API CK-4; API SN; Caterpillar ECF-2/ECF-3; Cummins CES 20081; Cummins CES 20086; Detroit Diesel DDC 93K218; Deutz DQC III-18 LA; Ford WSS-M2C171-F1; JASO DH-2; MACK EON; MACK EO-O PP; MACK EOS-4.5; MAN M3775; MB 228.31; MTU Cat. 2.1; Renault Trucks RLD-2/RLD-3; Volvo VDS-4; Volvo VDS-4.5.

10W-30 **SPECIFICATIONS:**
ACEA E7; ACEA E9; API CJ-4; API CK-4; Caterpillar ECF-2/ECF-3; Cummins CES 20081; Cummins CES 20086; Detroit Diesel DDC 93K218; Detroit Diesel DDC 93K222; Deutz DQC III-18 LA; Ford WSS-M2C171-F1; JASO DH-2; MACK EO-O PP; MACK EOS-4.5; MAN M 3271-1; MAN M 3575; MAN M 3775; MB 228.31; MTU Cat. 2.1; Renault Trucks RLD-3; Volvo VDS-4; Volvo VDS-4.5.

15W-40 **SPECIFICATIONS:**
ACEA E7; ACEA E9; API CJ-4; API CK-4; API SN; Allison TES-439; Caterpillar ECF-2/ECF-3; Cummins CES 20081; Cummins CES 20086; Detroit Diesel DDC 93K218; Detroit Diesel DDC 93K222; Deutz DQC III-18 LA; Ford WSS-M2C171-F1; JASO DH-2; MACK EO-O PP; MACK EOS-4.5; MAN M 3275-1; MAN M 3575; MAN M 3775; MB 228.31; MTU Cat. 2.1; Renault Trucks RLD-3; Volvo VDS-4; Volvo VDS-4.5.

Specifications valid through 2024. Check www.g-energy.org for actual specifications/approvals and detailed information.

G-Profi MSI 5W-40, 10W-30, 10W-40

All-season engine oils with improved low-temperature properties for modern diesel engines of trucks and special equipment of ecological class up to Euro-4 inclusive. They are produced on a semi-synthetic basis.

5W-40 **SPECIFICATIONS:**
ACEA E7; API CI-4; API SL; MAN M 3275; MB 228.3; Volvo VDS-3; JSC Avtodizel (YAMZ).

10W-30 **SPECIFICATIONS:**
ACEA E7; API CI-4; Caterpillar ECF-1a; Caterpillar ECF-2; Cummins CES 20077; Cummins CES 20078; Deutz DQC III; Global DHD-1; JASO DH-1; Komatsu; MACK EO-N; MAN M 3275; MB 228.3; MTU Cat. 2; Renault Trucks RLD-2; Volvo VDS-3.

10W-40 **SPECIFICATIONS:**
ACEA E7; API CI-4; API SL; Caterpillar ECF-2; Cummins CES 20076/77/78; Detroit Diesel DDC 93K215; Deutz DQC III-18; Global DHD-1; Komatsu; MACK EO-M Plus; MACK EO-N; MAN M 3275-1; MB 228.3; MTU Cat. 2; Renault Trucks RLD-2; Volvo VDS-3; JSC Avtodizel (YAMZ); JSC Kamaz; JSC TMZ.

G-Profi MSH 10W-40, 15W-40

All-season motor oils on semi-synthetic (10W-40) and mineral (15W-40) base[for heavy-duty diesel engines of trucks, quarry and special equipment of ecological class up to Euro-3 inclusive.

10W-40 **SPECIFICATIONS:**
ACEA E7; API CH-4; API SL; Caterpillar ECF-1a; Cummins CES 20076; Cummins CES 20077; Deutz DQC II-18; Komatsu; MACK EO-M Plus; MAN M 3275; MB 228.3; MTU Cat. 2; Renault Trucks RD; Renault Trucks RD-2; Volvo VDS-2; JSC Avtodizel (YAMZ); JSC Kamaz; JSC TMZ.

15W-40 **SPECIFICATIONS:**
ACEA E7; API CH-4; API SL; Caterpillar ECF-1a; Cummins CES 20076; Cummins CES 20077; Deutz DQC II-18; MACK EO-M Plus; MAN M 3275-1; MB 228.3; MTU Cat. 2; Renault Trucks RD; Renault Trucks RD-2; Volvo VDS-2; JSC Avtodizel (YAMZ); JSC Kamaz; JSC TMZ.

Specifications valid through 2024. Check www.g-energy.org for actual specifications/approvals and detailed information.

6.2. G-Truck and G-Box transmission oils

Classification of manual transmission and drive-axles oils

	API GL-4	API GL-5	API GL-4/GL-5
Application	Manual gearboxes and other light duty transmission units.	Differentials, manual gearboxes with steel synchromesh or nonsynchronized.	Various transmission units built with copper alloy parts or hypoid gears.
Product range	G-Truck GL-4 80W-90 G-Truck Z 75W-80 G-Box GL-4 75W-90 G-Box Expert GL-4 75W-90	G-Truck GL-5 80W-90, 85W-90, 85W-140 G-Box GL-5 75W-90 G-Box Expert GL-5 75W-90, 80W-90 Special oils for LSD-differentials: G-Truck LS 80W-90, 85W-90	G-Truck GL-4/GL-5 80W-90 G-Box GL-4/GL-5 75W-90

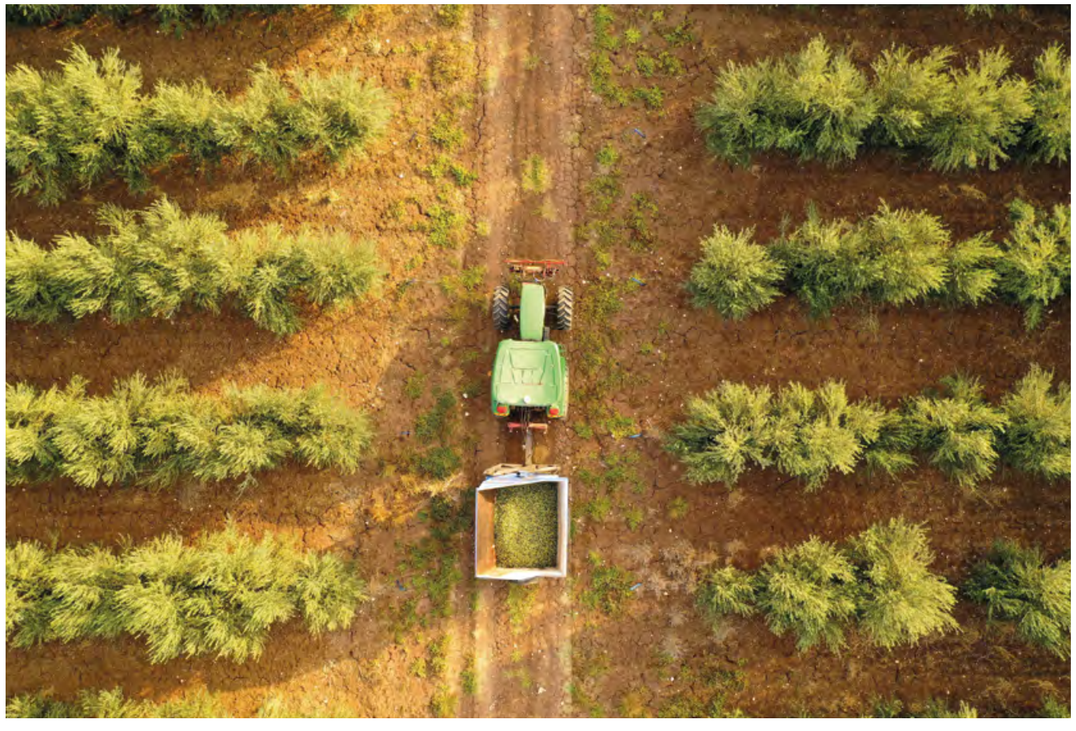
Property icon

- Anti-wear properties
- EP — Extreme pressure properties
- LONG LIFE — Extended drain interval
- Friction modified
- Copper alloy compatibility

Automatic transmission and power steering oils

Product name	Base-stock	Drain interval	Protection against the formation of deposits	Friction protection	Viscosity stability	Low-temperature properties
G-Box ATF DX III		■■■	■■■	■■■	■■■	■■■
G-Box Expert ATF DX III		■■	■■	■■	■■	■■
G-Box ATF DX II		■■	■■	■	■■	■■

Synthetic oils · Semi-synthetic oils · Mineral oils



Product range of G-Truck and G-Box transmission oils

Product name, SAE viscosity grade		Basestock	Wear and micropitting prevention	Extended drain interval	Limited Slip compatibility*	Oil film strength	Copper alloy compatibility	OEM requirements
API GL-4/ GL-5	**G-Box GL-4/GL-5 75W-90**	Synthetic	■■■	✓		■■	✓	■■■
	G-Truck GL-4/GL-5 80W-90	Mineral	■■■	✓		■■	✓	■■■
API GL-5	**G-Box GL-5 75W-90**	Synthetic	■■■			■■		
	G-Truck GL-5							
	80W-90, 85W-90	Mineral	■■■			■■		■■
	85W-140	Mineral	■■■			■■■		■■
	G-Truck LS							
	80W-90, 85W-90	Mineral	■■■		✓	■■		■■
	G-Box Expert GL-5							
	75W-90	Semi-synthetic	■■■			■■		
	80W-90	Mineral	■■■			■■		
API GL-4	**G-Box GL-4 75W-90**	Synthetic	■■			■■	✓	
	G-Truck GL-4 80W-90	Mineral	■■			■■	✓	■■■
	G-Truck Z 75W-80	Synthetic	■■			■	✓	■
	G-Box Expert GL-4 75W-90	Semi-synthetic	■■			■■	✓	

Synthetic oils | Semi-synthetic oils | Mineral oils

* Limited Slip differential

Advantages of G-Box GL-5, G-Box Expert GL-5 and G-Truck GL-5 oils

High anti-wear properties	Effective and reliable lubrication of the gear's teeth even at most extreme loads, lengthening the differentials' service life.
Long-lasting viscosity stability	Maintains adequate lubricating properties over the entire oil drain interval, allowing for a reliable protection of transmission gears.
Robust resistance against thermal degradation	Prevents deposit and sludge buildup thus preventing hindered heat removal from friction surfaces, reducing units overheating risk.
Sealant elastomer compatibility	Reduced leakage and unscheduled downtimes

API GL-4/GL-5

Universal API GL-4/GL-5 oils are designed for application on transmission units requiring API GL-4 (non-hypoid axles, synchronized manual gearboxes, transfer boxes, power take off transmissions etc.) as well as on transmissions according to API GL-5 (hypoid transmissions, nonsynchronized manual gearboxes, transfer boxes, power take off units etc.). not recommended for use on LSD.

G-Box GL-4/GL-5 75W-90

All-season universal transmission oil based on synthetic components (PAO) for passenger cars, heavy trucks, special and off-road vehicles. It has an extended service life compared to mineral-based oils.

SPECIFICATIONS:
API GL-4/GL-5/MT-1; ArvinMeritor 076-N; MACK GO-J; MAN 341 Type E3/Z2; MAN 342 Type S1; MAN M 3343 Type S1; MB 235.8; PRI GL 1057; SAE J2360; Volvo 97312; ZF TE-ML 02B, 05A, 12L, 12N, 16F, 17B, 19C, 21A.

Product formulation complies to Scania STO 1:0; Scania STO 1:1 G; Scania STO 2:0 A FS requirements

G-Truck GL-4/GL-5 80W-90

Universal mineral transmission oil for use in a wide range of ambient temperatures for heavy trucks, special and off-road vehicles.

SPECIFICATIONS:
API GL-4/GL-5/MT-1; ArvinMeritor 076-A/D; MACK GO-J; MAN 341 Type E2/Z2; MAN 342 Type M2; MAN M 3343 Type M; MB 235.0; SAE J2360; Volvo 97321; ZF TE-ML 02B, 05A, 07A, 08, 12L, 12M, 16B, 17H, 19B, 21A.

Product formulation complies to Scania STO 1:0; Scania STO 1:1 G requirements

Specifications valid through 2024. Check www.g-energy.org for actual specifications/approvals and detailed information.

API GL-5

Designed for highly loaded transmission units equipped with hypoid gearing (axles). Applicable on non-synchronized manual gearboxes, some transfer boxes, power take off transmissions etc. For axles equipped with limited slip differentials (LSD) choose special G-Truck LS product only.

G-Box GL-5 75W-90

Semi-synthetic transmission oil for passenger cars, heavy trucks, special and off-road vehicles applicable in a wide range of ambient temperatures.Compared to mineral products, it provides extended drain intervals.

SPECIFICATIONS:
API GL-5.

G-Box Expert GL-5 75W-90, 80W-90

Semi-synthetic transmission oil for passenger cars, heavy trucks, special and off-road vehicles applicable in a wide range of ambient temperatures.

SPECIFICATIONS:
API GL-5; JSC AVTOVAZ.

G-Truck GL-5 80W-90, GL-5 85W-90, 85W-140

All-season transmission oils for passenger cars, heavy trucks, special and off-road vehicles. They are intended for use in transmission units requiring API GL-5 oil (hypoid transmission, unsynchronized manual transmissions, transfer cases, power take-off boxes, etc.). They are not recommended for use in axles with limited slip differentials (LSD).

80W-90 **SPECIFICATIONS:**
API GL-5; DAF Axle; MAN 342 Type M1; MB 235.0; New Holland CNH MAT 3516; Renault Trucks; Volvo 97310; ZF TE-ML 05A, 07A, 08, 16B, 19B, 21A.

85W-90 **SPECIFICATIONS:**
API GL-4/GL-5/MT-1; ArvinMeritor 076-A/D; MACK GO-J; MAN 341 Type E2/Z2; MAN 342 Type M2; MAN M 3343 Type M; MB 235.0; SAE J2360; Volvo 97321; ZF TE-ML 02B, 05A, 07A, 08, 12L, 12M, 16B, 17H, 19B, 21A.

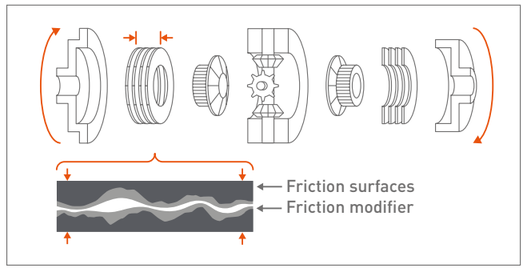
85W-140 **SPECIFICATIONS:**
API GL-5; DAF Axle; Iveco Axle; New Holland CNH MAT 3516; Scania STO 1:0; Volvo 97310; Volvo 97321; ZF TE-ML 05A, 07A, 08, 12E, 16C, 16D, 21A.

G-Truck LS 80W-90, 85W-90

A series of all-season transmission oils designed specifically for driving axles of heavy trucks, special and off-road vehicles with For axles equipped with limited slip differentials (LSD). The oils of this series can also be used in other transmission units requiring API oil. GL-5 (unsynchronized manual transmissions, transfer cases, power take-off boxes, etc.).

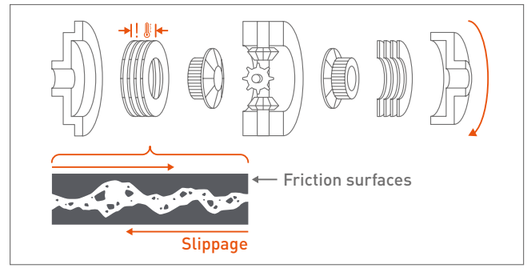
SPECIFICATIONS:
API GL-5; MIL-L-2105C/D; ZF TE-ML 05C, 12C, 16E (SAE 85W-90), 21C.

Operation of limited slip differentials (LSD)



G-Truck LS

G-Truck LS contains special friction modifiers to provide adequate operation of clutch friction elements in limited slip differentials (LSD).



Conventional GL-5 oil

Conventional GL-5 oil (containing no special friction modifiers) can not provide sufficient friction coefficient. However, misapplication of such product leads to slippage of friction surfaces and consequent overheating and wear.

API GL-4

Designed for lubricating transmissions requiring extreme pressure performance according to API GL-4 classification (non-hypoid axle gearings, synchronized manual gearboxes, transfer cases, power take off units etc.)

G-Box GL-4 75W-90

Synthetic transmission oil for passenger cars, heavy trucks, special and off-road vehicles applied in a wide temperature range.

SPECIFICATIONS:
API GL-4.

G-Box Expert GL-4 75W-90

Semi-synthetic transmission oil for passenger cars, heavy trucks, special and off-road vehicles applicable in a wide temperature range.

SPECIFICATIONS:
API GL-4; JSC AVTOVAZ.

G-Truck GL-4 80W-90

Mineral transmission oil for passenger cars, heavy trucks, special and off-road vehicles applicable in a wide temperature range.

SPECIFICATIONS:
API GL-4; MAN 341 Type E1/Z2; ZF TE-ML 02B, 16A, 17A, 19A.

G-Truck Z 75W-80

All-season fully synthetic energy-saving transmission oil developed for mechanical transmission (as well as automated) commercial highway and off-road vehicles manufactured by ZF, which are installed on MAN, DAF, Iveco, etc., as well as for Volvo transmission. Provides extended intervals between oil changes in accordance with the manufacturer's requirements.

SPECIFICATIONS:
API GL-4; DAF; Iveco; MAN 341 Type Z4; Renault; Robert Bosch TE-ML 08; Volvo 97307; ZF TE-ML 01L, 02L, 13, 16K.

ATF
They are designed for automatic transmissions with a torque converter, and are also used in some power steering systems.

G-Box Expert ATF DX III
Semi-synthetic transmission oil for automatic transmissions and power steering systems where Dexron IIIH and lower fluids are required. Due to the involvement of a synthetic base component, the oil has a high resistance to oxidation, ensures stable operation of transmissions in harsh climatic conditions and has an extended service life compared to mineral-based oils.

SPECIFICATIONS:

GM Dexron IIIH; MB 236.1, 236.2, 236.3, 236.5, 236.6, 236.7, 236.11; Ford MERCON; Caterpillar TO-2; ZF TE-ML 05L, 21L, 04D, 09, 11B, 14A, 02F, 03D, 17C; MAN 339 Type V1/Z1; LT 71141; Volvo CE 97340, 97341; Allison C-4; General Motors TASA; Voith H55.6335.

G-Box ATF DX III
Synthetic transmission oil designed for use in automatic transmissions and power steering of passenger cars and trucks where Dexron III and lower fluids are required. Due to its synthetic base, it has high oxidation resistance, ensures stable operation of transmissions in harsh climatic conditions and has an extended service life compared to mineral-based oils.

SPECIFICATIONS:

GM Dexron IIIH; MB 236.7; Ford MERCON; Ford MERCON V; ZF TE-ML 04 D, 05L, 09, 14C, 17C, 16L, 16R, 20B, 25B; MAN 339 Type L1/V2/ Z2/Z11; Volvo CE 97340; Allison C-4; Allison TES-389; Voith H55.6335.

G-Box ATF DX II
Transmission oil for automatic transmissions and power steering systems where Dexron IID and lower fluids are required. The oil has good low-temperature characteristics and high anti-wear properties.

SPECIFICATIONS:

GM Dexron IID, GM TASA; Allison C-4; MB 236.1; ZF TE-ML 02F, 03D, 04D, 09, 11, 14A, 17C; Voith H55.6335; MAN 339 Type L2/ V1/ Z1

6.3. G-Special hydraulic oils

Product name, ISO viscosity grade	Base stock	Oxidation stability	Viscosity stability*	Anti-wear properties	Water separation	Emulsifying property	Foam suppression	Zinc-Free technology	Low temperature properties
G-Special Hydraulic Nord-32		■■■■	■■	■■■	✓		■■■		■■■■
G-Special Power HVLP ISO VG: 32, 46		■■■■	■■■	■■■	✓		■■■		■■■
G-Special Hydraulic HVLP ISO VG: 22, 32, 46, 68		■■	■■	■■■	✓		■■■		■■
G-Special Hydraulic HVLPD-46		■■	■■	■■■		✓	■■	✓	■■

Synthetic oils

Mineral oils

Product range of G-Special hydraulic oils

G-Special Hydraulic Nord-32
Hydraulic oil with excellent low-temperature properties based on synthetic components of group IV (PAO) and group V according to API classification. It is intended for use in hydraulic systems of quarry, special and off-road equipment operating in harsh climatic conditions (for example, the Far North). Excellent viscosity-temperature characteristics allow reliable operation of oil in hydraulic drives. High wear protection, oxidation stability and filterability make it possible to maximize the service life of hydraulic systems.

SPECIFICATIONS:
DIN 51524 Part 3 (HVLP); ISO 11158 HV.

* Property of the oil to stay in initial viscosity grade and withstand shearing forces of hydraulic pump.

G-Special Power HVLP-32, -46

Energy-saving hydraulic oil, which allows to increase the productivity of machinery and reduce fuel consumption. Fully synthetic oil, which base stock ensures outstanding oxidative stability and protection against deposit formation. Effectively protects elements of the hydraulic system against corrosion and cavitation at high loads in various climatic conditions.

Latest generation of the viscosity modifier provides exceptional viscosity stability in high mechanical stress conditions and various operating temperatures of the hydraulic system over the entire drain interval.

SPECIFICATIONS:
DIN 51524 Part 3 (HVLP); ISO 11158 HV;
Bosch Rexroth RDE 90235;
Denison Hydraulics HF-0, -1, -2;
MAG P-68 (ISO 32); MAG P-70 (ISO 46);
Eaton E-FDGN-TB002-E.

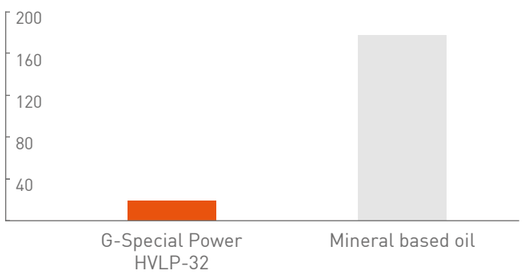
High temperature oxidation stability*

Exceptional oxidative stability of G-Special Power HVLP-32 provides adequate lubricating properties and protection against varnish particle formation/ sedimentation over the entire drain interval.

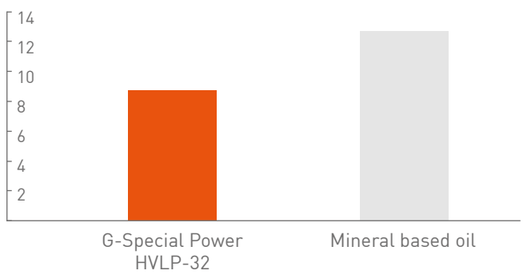
Viscosity stability**

High viscosity stability of G-Special Power HVLP-32 maintains optimal operating viscosity and hydraulic pump output even at the most extreme mechanical loads on the hydraulic system over the entire drain interval.

Oxidation byproduct accumulation measured by IR-spectroscope, cm^{-1}/mm



Kinematic viscosity increase at +100 °C after KRL test, %



* Test: ASTM D7214.** Test: DIN 51350-6.

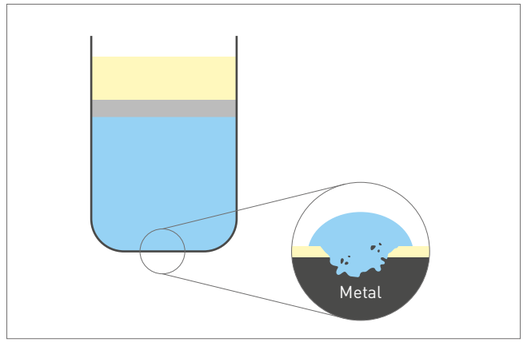
Specifications valid through 2024. Check www.g-energy.org for actual specifications/approvals and detailed information.

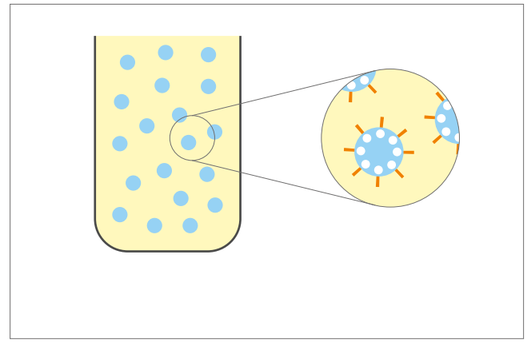
G-Special Hydraulic HVLPD-46

Oil for a round the year application in quarry, special and off-road vehicles operating in conditions of severe flooding and pollution and not having a water removal system from the hydraulic tank. Oil keeps water and dirt suspended so that contamination is driven to the oil filter instead of settling out on the surfaces of the hydraulic system's components.

SPECIFICATIONS:
DIN 51524 Part 3 (HVLP)
(excluding de-emulsification properties)
ASTM D1401 (not applicable to HVLPD category oils)).

If the machinery's hydraulic system is not equipped with a water draining faucet, application of HVLPD grade oil is vitally important. Dispersing additives of this type of hydraulic lubricant keeps water and dirt in a suspended state, accordingly neutralizing the detrimental effect of the contamination.





G-Special Hydraulic HVLP-22, -32, -46

Series of hydraulic oils designed for application on hydraulic systems operating at high and low ambient temperatures. Oils provide adequate functioning of mobile hydraulic systems in different weather conditions, protect the hydraulic system's components against wear, contribute to quick air and water separation, inhibit oxidation and suppress foam formation.

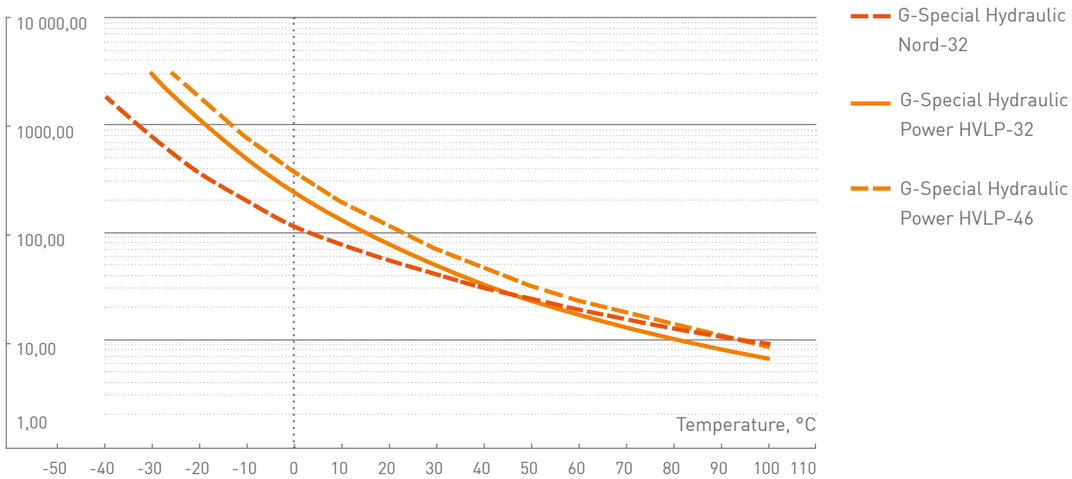
SPECIFICATIONS:
DIN 51524 Part 3 (HVLP); Denison Hydraulics HF-0,-1,-2 (ISO VG 32, 46);
MAG P-68/70 (ISO VG 32, 46);
Eaton Vickers 35VQ25;
Bosch Rexroth RDE 90235.

Specifications valid through 2024. Check www.g-energy.org for actual specifications/approvals and detailed information.

Diagrams: dependence of kinematic viscosity on the hydraulic oil's temperature

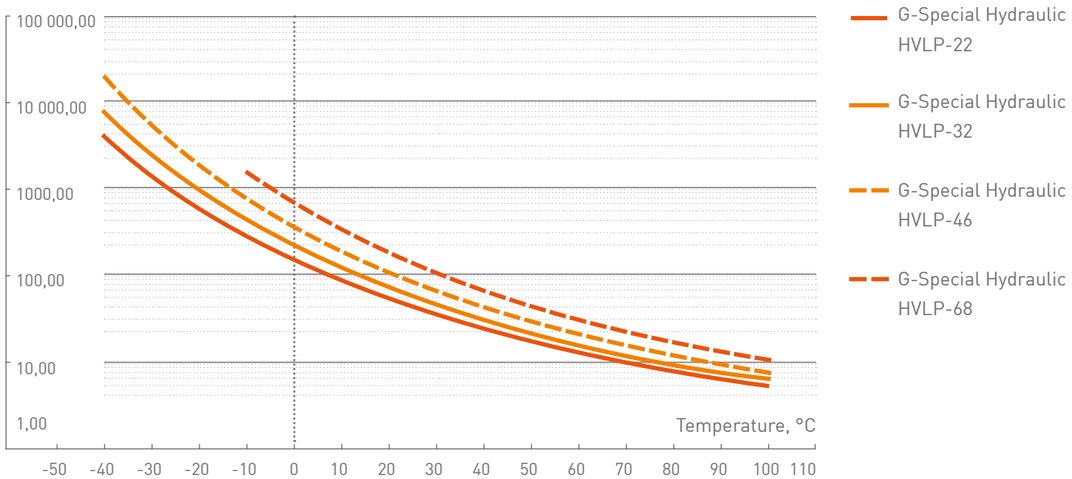
G-Special Hydraulic Nord-32, G-Special Hydraulic Power HVLP-32, -46

Kinematic viscosity, cSt



G-Special Hydraulic HVLP

Kinematic viscosity, cSt



6.4. Power train and transmission/hydraulic fluids

G-Special universal oils

Product name, SAE viscosity grade	Sludge control	Viscosity stability	Heavy duty agricultural equipment applications	Engine application	Low temperature properties
G-Special TO-4 Arctic 0W-20	■■■	■■	✓		■■■
G-Special TO-4					
5W-30	■■■	■■	✓		■■■
10W	■■	■■■	✓		■■
30, 50	■■	■■■	✓		■
G-Special FD-1 60	■■	■■■	✓		■
G-Special UTTO Premium 10W-30	■■■	■■			■■
G-Special UTTO 10W-30	■■	■■			■■
G-Special STOU 10W-30, 10W-40	■■■	■■	✓		■■

TO-4 and UTTO/STOU oils are not interchangeable.

G-Special UTTO 10W-30

Transmission units

Hydraulic systems

Clutch systems of moderately loaded equipment

Hydraulic-transmission fluid for hydraulic systems and transmissions of specialized and off-road machinery operating in a wide range of ambient temperatures. Optimal friction properties provide smooth operation of wet brakes and power transmissions.

SPECIFICATIONS:
API GL-4, Allison C-4; Volvo 97303 (WB 101); John Deere JDM J20C; Massey Ferguson CMS M1143; Massey Ferguson CMS M1145; New Holland CNH MAT 3525; New Holland CNH MAT 3505; New Holland CNH MAT 3506 (MS 1210); New Holland CNH MAT 3509; New Holland CNH MAT 3540; ZF TE-ML 03E; ZF TE-ML 05F; ZF TE-ML 17E; ZF TE-ML 21F.

G-Special UTTO Premium 10W-30

Transmission units

Hydraulic systems

Clutch systems of moderately loaded equipment

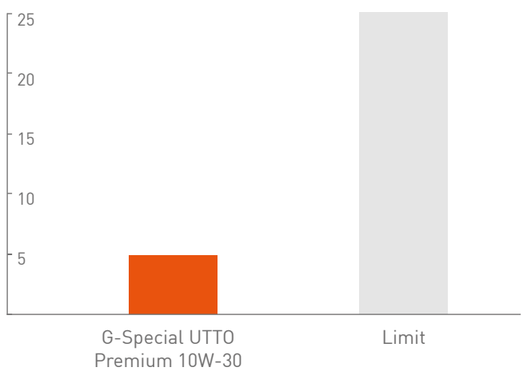
Semi-synthetic hydraulic-transmission fluid for hydraulic systems and transmissions of specialized and off-road machinery operating in a wide range of ambient temperatures. Optimal friction properties provide smooth operation of wet brakes and power transmissions. Contrary to mineral oils, extended drain intervals can be applied.

SPECIFICATIONS:
API GL-4; Allison C-4; Volvo 97303 (WB 101); John Deere JDM J20C; AGCO Powerfluid 821XL; Massey Ferguson CMS M1135; Massey Ferguson CMS M1141; Massey Ferguson CMS M1143; Massey Ferguson CMS M1145; New Holland CNH MAT 3505; New Holland CNH MAT 3525; New Holland CNH MAT 3540; New Holland CNH MAT 3510 (MS1317); New Holland CNH MAT 3509; New Holland CNH MAT 3506 (MS 1210); New Holland CNH MAT 3526 (FNHA 2-C-200.00); Ford ESN M2C 86 B/C; Ford ESN M2C 134-D Deutz-Fahr; Fendt (Non Vario); Komatsu; Claas; AGCO MQ-186 (White Farm); ZF TE-ML 03E; ZF TE-ML 05F; ZF TE-ML 06K; ZF TE-ML 06D; ZF TE-ML 06E; ZF TE-ML 17E; ZF TE-ML 21F; Kubota UDT Fluid; SAME Transmissions; Caterpillar TO2; Valtra G02-08; Landini.

Oxidation related oil thickening*

High thermal stability of G-Special UTTO Premium 10W-30 provides extended drain intervals and consequently reduced operating costs.

Aging induced kinematic viscosity increase, 100 °C, %



*Test according to CEC L-48-00 (B)

G-Special STOU 10W-30, 10W-40

Transmission units

Hydraulic systems

Clutch systems of moderately loaded equipment

Agricultural machinery engines (follow OEM recommendations)

Semi-synthetic universal tractor oil for a wide range of ambient temperature application. Can be applied as an as engine, hydraulic, various transmission oil in agriculture and specialized machinery. Provides optimal operation of wet brakes and transmissions.

SAE viscosity grades: 10W-30, 10W-40.

SPECIFICATIONS:
Massey Ferguson CMS M1145*; ZF TE-ML 06B*, 07B*; Ford WSS-M2C159B/C, M2C86B, M2C134A**; John Deere JDM J27; New Holland NH 024C* NH410B**, NH420A**; FNH 82009201**, 82009202**, 82009203*; Sperry Vickers/Eaton I-280-S/M2950S; Sauer Sunstrand/Danfoss, Hydro Static Trans Fluid; Massey Ferguson CMS M1144, M1145**, 1139** 1135**, 1127A**; ZF TE-ML* 05K, 06B, 06C, 07B, 07D; API CG-4, CF-4, CF, CE, CD, SF, SE; API GL-4; ACEA E3; MAN 271; Caterpillar TO-2; Allison C-4; MB 227.1; MB 228.1*

* G-Special STOU 10W-40 only; ** G-Special STOU 10W-30 only

G-Special TO-4 5W-30, 10W, 30, 50

Transmission units

Hydraulic systems

Clutch systems of heavy loaded equipment

Oil for all-season use in quarry, special and off-road equipment operating in conditions of heavy watering and contamination and not having a system of water removal from the hydraulic tank.

SPECIFICATIONS:
Caterpillar TO-4; Allison C-4; ZF TE-ML 03C (SAE 10W, 30, 50); ZF TE-ML 03C, 07F (SAE 5W-30, 30, 50); Komatsu KES 07.868.1 (SAE 10W, 30, 50); Komatsu KES 07.871 (SAE 5W-30).

Specifications valid through 2024. Check www.g-energy.org for actual specifications/approvals and detailed information.

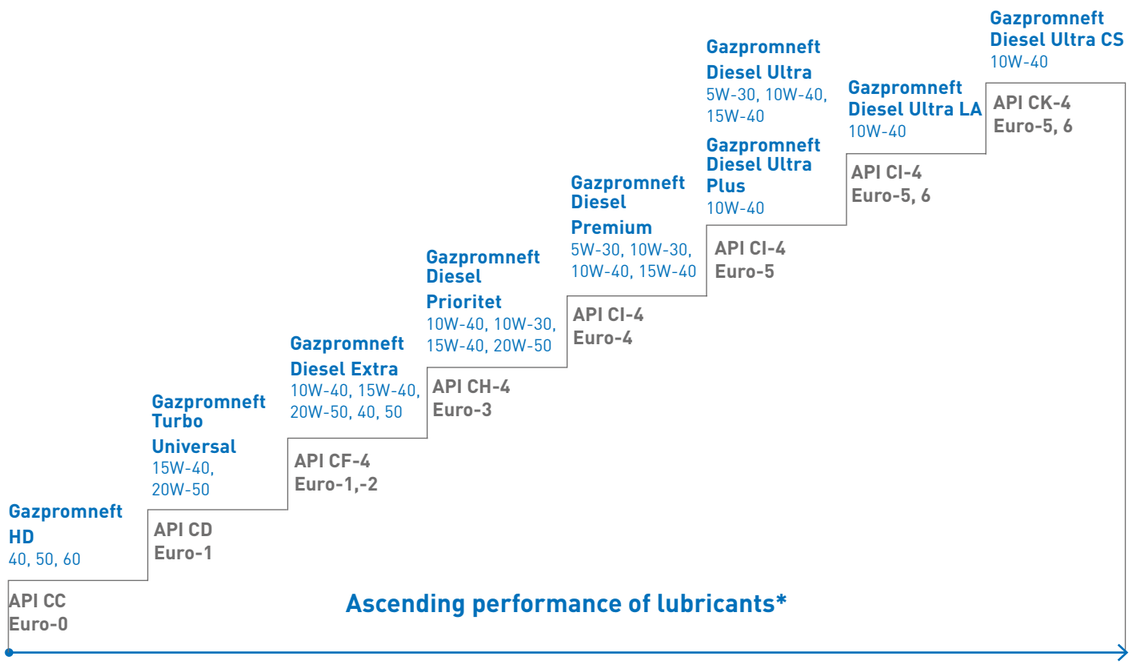
Gazpromneft oils and GOST replacement

Due to their reliability and durability there is still a large number of machinery and equipment made in the eighties or earlier operating in the agriculture industry. Machinery of this age requires specific, yet high quality lubricants. For such purpose GOST products or improved replacements made of enhanced components are available.

Accurate maintenance and use of quality lubricants often prolong the life cycle of these old machines for many more years.

7.1. Engine oils

Series of Gazpromneft oils for heavy duty engines



* Higher grade supersedes previous one.

GOST quality standard oil replacement instructions

Product name; Property	Engine output/ displacement ratio	Drain intervals	Ambient temperature range	System cleanliness	Soot control	All season applicability
Gazpromneft Turbo Universal	■■■	■■	■■	■■	■■■	✔
M-8DM, M-10DM	■	■	■	■	■	
Gazpromneft HD 40, 50, 60	■■	■■	■	■■	■	
M-8G2k, M-10G2k	■■	■	■	■	■	
M-8G2, M-10G2	■■	■	■	■	■	
M-6z/10V	■	■	■■			✔
M-8V, M-10V2	■	■	■			

Reasons to flush the engine's lubrication system before applying a higher category of oil

- Higher category oil provides improved properties like deposit and sludge control. Better surface washing capacity washes off a part of the sludge left by previous lower quality lubricants. That may lead to pressure loss or even blockage of lubrication channels.
- Degraded leftovers, wear particles and combustion products of previous low grade lubricant deteriorate the fresh oil's properties and potential.

Methods of engine flushing before applying a higher grade product

1. Completely drain used product and fill the new one. Change the filter too.
2. Operate equipment but cut the next OEM recommended drain interval to half.

1. Completely drain previously used oil and fill the new one.
2. Flush the system by idling engine up to half an hour, drain the oil and fill the new product again. Filter change is mandatory. If the engine is severely dirty the oil pickup strainer screen should be manually cleaned as well.

Gazpromneft Diesel Ultra

Series of synthetic engine oils providing enhanced neutralizing properties for the most advanced highly rated, turbo aspirated diesel engines made in Europe or North America according to Euro-5 (no DPF installed) requirements.

SAE viscosity grades:
5W-30, 10W-40, 15W-40

5W-30

SPECIFICATIONS:
ACEA E4; ACEA E7; API CI-4; Cummins CES 20078; Deutz DQC IV-18; Global DHD-1; Iveco 18-1804 TFE (SAE 10W-40); JASO DH-1; MACK EO-N; MAN M 3277; MB 228.5; MTU Cat. 3; Scania LDF 3; Renault Trucks RLD-2; Volvo VDS-3; JSC Avtodizel (YAMZ); JSC Kamaz.

10W-40

SPECIFICATIONS:
ACEA E4; ACEA E7; API CI-4; Cummins CES 20078; Detroit Diesel DDC 93K215; Global DHD-1; JASO DH-1; MACK EO-N; MTU Cat. 3; Renault Trucks RLD-2; Volvo VDS-3.

15W-40

Gazpromneft Diesel Ultra Plus

All-season engine oil based on synthetic technologies. The involvement of synthetic base components in combination with improved neutralizing properties allows the oil to maintain its performance characteristics for a longer period than ACEA E7 oils. It complies with the ACEA E4 operational class and can be used in European equipment of environmental class up to and including Euro-5.

SAE viscosity grades: 10W-40.

10W-40

SPECIFICATIONS:
ACEA E4; ACEA E7; API CI-4; Cummins CES 20078; Detroit Diesel DDC 93K215; Global DHD-1; JASO DH-1; MACK EO-N; MAN M 3277; MB 228.5; MTU Cat. 3; Renault Trucks RLD-2; Volvo VDS-3; ZF TE-ML 03A, 05K, 07D, 21K; JSC Avtodizel (YAMZ); JSC Kamaz.

Gazpromneft Diesel Ultra LA

All-season universal fully synthetic engine oil developed using low-SAPS technology to provide maximum protection for exhaust gas neutralization systems, including diesel particulate filters (DPF). It belongs to the UHPD (Ultra High Performance Diesel) class and is intended for high-powered turbocharged diesels from European and other manufacturers of the Euro-5, -6 environmental class.

SAE viscosity grades: 10W-40.

SPECIFICATIONS:
ACEA E6; ACEA E7; ACEA E9; API CI-4; Cummins CES 20076/77; Deutz DQC IV-18 LA; JASO DH-2; MACK EO-N; MAN M 3271-1; MAN M 3477; MB 228.51; MTU Cat. 3.1; Renault Trucks RLD-2; Volvo VDS-3; JSC Avtodizel (YAMZ); JSC Kamaz.

Gazpromneft Diesel Ultra CS

An all-season engine oil developed specifically for use in modern diesel engines of American, European and Asian manufacturers operating in harsh operating conditions. It is used in engines of ecological class up to Euro-5 and Euro-6 inclusive, compatible with exhaust gas purification systems, including with a DPF particulate filter. It has high oxidation stability in accordance with the requirements of the API CK-4 standard. Surpasses API CJ-4 standard oils and replaces them.

SAE viscosity grades: 10W-40.

SPECIFICATIONS:
ACEA E7; ACEA E9; Allison TES-439; API CK-4; API SN; Caterpillar ECF-2; Caterpillar ECF-3; Cummins CES 20081; Cummins CES 20086; Detroit Diesel DDC 93K222; Deutz DQC III-18 LA; JASO DH-2; MACK EOS-4.5; MAN M 3575; MAN M 3775; MB 228.31; MTU Cat. 2.1; New Holland CNH MAT 3571; Renault Trucks RLD-3; Volvo VDS-4.5; JSC Avtodizel (YAMZ).

Gazpromneft Diesel Premium

Series of universal semisynthetic (5W-40, 10W30, 10W-40) and mineral (15W-40) engine oils for a wide range of temperature application. Designed for heavy-duty diesel engines according to Euro-4 environmental requirements. This lubricant provides enhanced alkalinity and detergent/dispersant properties.

SAE viscosity grades: 5W-40, 10W-30, 10W-40, 15W-40.

5W-40 **SPECIFICATIONS:**
ACEA E7; API CI-4; API SL; Caterpillar ECF-1a/2; Cummins CES 20076/77/78; Deutz DQC III-18; Global DHD-1; JASO DH-1; MACK EO-M Plus; MACK EO-N; MAN M 3275-1; MB 228.3; MTU Cat. 2; Renault Trucks RLD/RLD-2; Volvo VDS-3; JSC Avtodizel (YAMZ); JSC Kamaz; JSC TMZ.

10W-30 **SPECIFICATIONS:**
ACEA E7; API CI-4; API SL; Caterpillar ECF2; Cummins CES 20076/77/78; Deutz DQC III-18; Global DHD-1; JASO DH-1; MACK EO-M Plus; MACK EO-N; MAN M 3275-1; MTU Cat. 2; Renault Trucks RLD-2; Volvo VDS-3; JSC Avtodizel (YAMZ); JSC Kamaz; JSC TM.

10W-40 **SPECIFICATIONS:**
ACEA E7; API CI-4; API SL; Caterpillar ECF-1a/2; Cummins CES 20076/77/78; Detroit Diesel DDC 93K215; Deutz DQC III18; Global DHD-1; JASO DH-1; MACK EO-M Plus; MACK EO-N; MAN M 3275-1; MB 228.3; MTU Cat. 2; Renault Trucks RLD-2; Volvo VDS-3; JSC Avtodizel (YAMZ); JSC TMZ.

15W-40 **SPECIFICATIONS:**
ACEA E7; API CI-4; API SL; Caterpillar ECF-2; Cummins CES 20078; Deutz DQC III-18; Global DHD-1; JASO DH-1; MACK EO-N; MAN M 3275; MB 228.3; MTU Cat. 2; Renault Trucks RLD-2; Volvo VDS-3; JSC Avtodizel (YAMZ); JSC Kamaz.

Gazpromneft Diesel Prioritet

Series of semi-synthetic (10W-30, 10W-40) and mineral (15W-40, 20W-50) diesel engine oils according to Euro-3 exhaust gas limits for a wide range of temperature application.

SAE viscosity grades: 10W-30, 10W-40, 15W-40, 20W-50.

10W-30 **10W-40** **SPECIFICATIONS:**
API CH-4; API SJ; Cummins CES 20076; MAN M 3275-1; MTU Cat. 2; JSC Avtodizel (YAMZ); JSC Kamaz; JSC TMZ.

15W-40 **SPECIFICATIONS:**
API CH-4; API SJ; Cummins CES 20076/77; Deutz DQC II-18; MAN M 3275-1; MTU Cat. 2; Volvo VDS-2; JSC Avtodizel (YAMZ); JSC Kamaz.

20W-50 **SPECIFICATIONS:**
API CH-4; API SJ; Cummins CES 20076; MAN M 3275-1; MTU Cat. 2; JSC Avtodizel (YAMZ); JSC Kamaz; JSC TMZ.

Specifications valid through 2024. Check gazpromneft-oil.ru for actual specifications/approvals and detailed information.

Gazpromneft Diesel Extra

Series of semi-synthetic (10W-40) and mineral (15W-40, 20W-50; 40; 50) diesel engine oils for various output/displacement ratio diesel engines according to Euro-2 exhaust gas limits for a wide range of temperature application.

SAE viscosity grades: 10W-40, 15W-40, 20W-50, 40, 50.

10W-40
15W-40
20W-50

SPECIFICATIONS:
API CF-4; API SG; JSC Kamaz; JSC Avtodizel (YAMZ); JSC TMZ.

SAE 40
SAE 50

SPECIFICATIONS:
API CF; API CF-4; MAN 270; MB 228.0.

- ✔ **Unified engine oil for vehicle fleets** consisting of various diesel engines: light and moderate duty diesel engines equipped with or without a turbo compressor and without a diesel particulate filter according to Euro-2 exhaust gas treatment limits.

API CF-4 ⇢ API CF ⇢ API CD ⇢ API CC

- ✔ **TBN 11 –** maximized protection against effect of high sulfur fuels.
- ✔ **Various viscosity grade options according to specific climatic operating conditions.**
- ✔ **Use of synthetic components** (10W-40 viscosity grade).

Gazpromneft Turbo Universal

Series of wide range ambient temperature diesel engine oils replacing products providing narrow single season applicability: M-10DM, M-10G2k, M-10G2, M-8G2k, M-8G2.

SAE viscosity grades: 15W-40, 20W-50.

SPECIFICATIONS:
API CD; JSC Avtodizel (YAMZ); JSC TMZ.

Gazpromneft HD

Series of single-grade viscosity diesel engine oils for stationary engines or applications above freezing temperatures.ss

SAE viscosity grades: 40, 50, 60.

SPECIFICATIONS:
API CC.

Specifications valid through 2024. Check gazpromneft-oil.ru for actual specifications/approvals and detailed information.

7.2. Transmission oils

Product name, SAE viscosity grade	Base stock	Prevention of micropitting	Extended drain interval	Oil film strength	Copper alloy compatibility	OEM requirements
Gazpromneft GL-4/GL-5 75W-90		■■■	✔	■■	✔	■■■
Gazpromneft GL-5						
75W-90		■■■		■■		
80W-90		■■■		■■		■■■
85W-140, 140		■■■		■■■		
90		■■■		■■		
Gazpromneft Super T-3 85W-90		■■■		■■		■■■
Gazpromneft GL-4						
75W-85, 75W-90		■■		■■	✔	
80W-85, 80W-90, 90		■■		■■	✔	
140		■■		■■■	✔	
GOST standard products						
TSP-15K (TM-3-18)		■		■■	✔	

Synthetic oils · Semi-synthetic oils · Mineral oils

API GL-4/GL-5
Universal transmission oils according to GL-4 and GL-5 requirements.

Gazpromneft GL-4/GL-5 75W-90
All-season synthetic universal transmission oil. It is developed both for transmission units requiring API GL-4 oil (gearboxes of axles without hypoid gears, synchronized manual transmissions, transfer cases, power take-off boxes, etc.) and for units requiring API GL-5 oil (hypoid transmissions, unsynchronized manual transmissions, transfer cases, power take-off boxes, etc.). It is not recommended for use in axles equipped with limited slip differential (LSD). It has an extended service life compared to mineral-based oils.

SPECIFICATIONS:
API GL-4/GL-5/MT-1; MAN 341 Type E2; MAN 341 Type E3/Z2; MAN 342 Type M3; MIL-PRF-2105E; SAE J2360; ZF TE-ML 02B, 05A, 12L, 12M, 12N, 16B, 17B, 19C, 21A.

Product formulation compliance to Scania STO 1:0, Scania STO 1:1 G requirements confirmed.

API GL-5
They are intended for use in transmission units requiring API GL-5 oil (hypoid gears, unsynchronized manual transmissions, transfer cases, power take-off boxes, etc.). They are not recommended for use in axles with limited slip differential (LSD).

Gazpromneft GL-5 75W-90
Semi-synthetic transmission oil for a wide temperature range of application.

SPECIFICATIONS:
API GL-5.

Gazpromneft GL-5 80W-90
Mineral transmission oil for a wide temperature range of application.

SPECIFICATIONS:
API GL-5; MAN 342 Type M2; MIL-L2105D; ZF TE-ML 05A, 07A, 08, 12E, 16B, 17B, 19B, 21A; JSC AVTOVAZ.

Gazpromneft Super T-3 (SAE 85W-90)
Mineral transmission oil for a wide temperature range of application.

SPECIFICATIONS:
API GL-5; MAN 342 Type M1; MB 235.0; ZF TE-ML 16C, 17B, 19B, 21A; JSC AVTOVAZ; GAZ Ltd.

Gazpromneft GL-5 85W-140
Mineral transmission oil for a wide temperature range of application. It is intended for use in heavily loaded hypoid gears requiring API GL-5 viscosity grade SAE xxW-140 oil.

SPECIFICATIONS:
API GL-5.

Gazpromneft GL-5 90, 140
Seasonal transmission oils for heavy-duty hypoid gears.

SPECIFICATIONS:
API GL-5.

API GL-4
Designed for transmission units requiring API GL-4 oil (gearboxes of axles without hypoid gears, synchronized manual transmissions, transfer cases, power take-off boxes, etc.).

Gazpromneft GL-4 75W-90
Semi-synthetic transmission oil for a wide range of ambient temperature conditions.

SPECIFICATIONS:
API GL-4.

Gazpromneft GL-4 80W-85, 80W-90
Mineral transmission oils for a wide temperature range of application.

SPECIFICATIONS:
API GL-4; ZF TE-ML 08, 17A; JSC AVTOVAZ.

Gazpromneft GL-4 90, 140
Seasonal transmission oils.

SPECIFICATIONS:
API GL-4.

Specifications valid through 2024. Check gazpromneft-oil.ru for actual specifications/approvals and detailed information.

7.3. Oils for hydraulic systems and hydraulic transmissions

Product name, Property	Application	Base stock	Drain intervals	Sludge control	Protection of friction elements	Viscosity stability	Low temperature properties
Gazpromneft ATF DX III							
Gazpromneft ATF DX II							
Gazpromneft Mark "A"							
Gazpromneft Mark "R"							

Semi-synthetic oils · Mineral oils · Automatic transmissions · Power steering

Gazpromneft UTTO 10W-30

All-season gear-hydraulic oil designed for use in hydraulic systems and transmission units of special and off-road equipment. Thanks to its optimal friction properties, it ensures smooth operation of wet brakes and power transmissions.

SPECIFICATIONS:
Allison C-4; API GL-4; Ford M2C-134-D; Ford M2C-86-B; Ford M2C-86-C; John Deere JDM J20C; Massey Ferguson CMS M1135; Massey Ferguson CMS M1143.

Gazpromneft ATF DX III

Semi-synthetic oil for automatic transmissions, hydraulic and power steering systems according to Dexron IIIH and earlier requirements.

SPECIFICATIONS:
Allison C-4; Caterpillar TO-2; Ford MERCON; General Motors DEXRON IIIH; General Motors TASA; MAN 339 Type V1/Z1; MB 236.1; MB 236.11; MB 236.2; MB 236.3; MB 236.5; MB 236.6; MB 236.7; Voith H55.6335; Volvo 97341; Volvo CE 97340; ZF TE-ML 02F, 03D, 04D, 05L,09, 11B, 14A, 17C, 20B, 21L.

Gazpromneft ATF DX II

Semi-synthetic oil for automatic transmissions, hydraulic and power steering systems according to Dexron IID and earlier requirements.

SPECIFICATIONS:
General Motors DEXRON IID.

Gazpromneft Mark "A"

Hydraulic transmission oil for hydraulic transformers, automatic transmissions, hydrostatic transmissions of heavy/light duty and specialized machinery.

Specifications valid through 2024. Check gazpromneft-oil.ru for actual specifications/approvals and detailed information.

Gazpromneft Mark "R"

Specialized product for power steering systems and hydrostatic transmissions of heavy/light duty and specialized machinery.

Gazpromneft oils for hydraulic systems

Product name, ISO viscosity grade	Oxidation stability	Viscosity stability*	Anti-wear properties	Water separation	Emulsification	Foam suppression/ Air release	Zinc-Free technology	All season applicability
Gazpromneft Hydraulic HVLP ISO VG: 10, 15, 22, 32, 46, 68				✓			✓	
Gazpromneft Hydraulic HLP ISO VG: 10, 15, 22, 32, 46, 68				✓				
Gazpromneft Hydraulic Standard HVLP ISO VG: 32, 46				✓				
Gazpromneft Hydraulic All Seasons				✓				
Gazpromneft Hydraulic HLP ISO VG: 32, 46, 68, 100				✓				
Gazpromneft Hydraulic HLPD ISO VG: 32, 46, 68					✓		✓	
Gazpromneft Hydraulic ISO VG: 32, 46, 68, 100				✓				

MGE-46V

Hydraulic oil for a wide ambient temperature range of application on hydraulic and hydrostatic transmission systems of specialized machinery.

Replacement →
- **Gazpromneft Hydraulic HVLP-46**
- **Gazpromneft Hydraulic HLP-46**
- **Gazpromneft Hydraulic-46**
- **Gazpromneft MG-68V**

Gazpromneft MG-68V

Oil for hydraulic systems, tractor transmissions and other agricultural equipment operating at a pressure not exceeding 25 MPa.

Replacement →
- **Gazpromneft Hydraulic HVLP-68**
- **Gazpromneft Hydraulic HLP-68**
- **Gazpromneft Hydraulic-68**

* Property: the oil stays in initial viscosity grade and withstands the shearing forces of the hydraulic pump.

Gazpromneft Hydraulic HVLP

A series of all-season hydraulic oils designed for use at both low and high air temperatures. Due to the reserve of operational properties, the oils of this series ensure the operation of hydraulic systems of mobile equipment in a wide range of weather conditions, protect hydraulic system parts from wear, deposits and corrosion.

VISCOSITY GRADES ISO VG:
10, 15, 22, 32, 46, 68.

Specifications

Approvals/specifications	ISO viscosity grade					
	10	15	22	32	46	68
DIN 51524 Part 3 (HVLP)	✓	✓	✓	✓	✓	✓
ISO 11158 HV	✓	✓	✓	✓	✓	✓
Denison HF-0, -1, -2				✓	✓	✓
Eaton E-FDGN-TB002-E				✓	✓	✓
Bosch Rexroth RDE 90235				✓	✓	✓
Fives Cincinnati P-68, -69, -70				✓	✓	✓
Beltramelli				✓	✓	✓
Sierra T 1000					✓	

Gazpromneft Hydraulic All Seasons

A hydraulic fluid created on the basis of synthetic base components g-base and providing an extended temperature range of application (from -35 to +70° C) in comparison with standard all-season oils. The combination of synthetic base components of the g-base and a polymer additive of high stability makes it possible to achieve improved low-temperature and antioxidant properties. Due to the exceptional functional-time approach, it can be applied to all international quality standards ISO VG 22, ISO VG 32.

SPECIFICATIONS:
DIN 51524 Part 3,
ISO 6743-4 HV;
JSC Pneumostroymashina/
PSM-HYDRAULICS.

Bosch Rexroth RDE 90235

(Bosch Rexroth RDE 90245 list)

Pump test characteristics:

- Control over 90 physical/chemical parameters.
- Oil condition monitored before, during and after testing routines.
- Latest axial piston pump test:

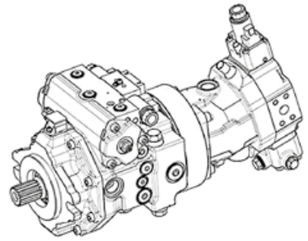
Duration, h
500

P, atm
500

V, rpm
4000

During the pump test evaluated:

- Protection of of the pistons' nitride layer.
- Anti-wear properties of the oil.
- Ability to maintain the hydraulic system's reliability.



Specifications valid through 2024. Check gazpromneft-oil.ru for actual specifications/approvals and detailed information.

Gazpromneft Hydraulic HVZF

A series of synthetic all-season hydraulic oils developed using a zinc-free additive technology for use in hydraulic equipment systems, for which both low and high operating temperatures are typical. Oils due to the use of synthetic base components have increased stability to oxidation, which makes it possible to work with an extended service interval. The skink-free technology provides very high protection of the working surfaces of the hydraulic system made of non-ferrous metals.

VISCOSITY GRADES ISO VG: 22, 32, 46, 68.

Zn-free

Specifications

Approvals/specifications	ISO viscosity grade			
	22	32	46	68
DIN 51524 Part 3	✓	✓	✓	✓
Denison HF-0, -1, -2		✓	✓	✓
Eaton E-FDGN-TB002-E (35VQ25)		✓	✓	✓
Bosch Rexroth RDE 90235		✓	✓	✓
MAG P-68		✓		
MAG P-69				✓
MAG P-70			✓	

Gazpromneft Hydraulic HLP

A series of hydraulic oils designed for use in particularly heavy-duty hydraulic systems of quarry, special and off-road vehicles, as well as stationary equipment. They are especially relevant for hydraulic systems that require high viscosity stability during the entire oil change interval. Application for low temperature operations is admissible only in accordance with the equipment manufacturer's recommendations.

VISCOSITY GRADES ISO VG:
32, 37, 46, 68, 100.

Specifications valid through 2024. Check gazpromneft-oil.ru for actual specifications/approvals and detailed information.

Approvals/specifications	ISO viscosity grade				
	32	37	46	68	100
DIN 51524 Part 2 (HLP)	✓	✓	✓	✓	✓
ISO 11158 HM	✓	✓	✓	✓	✓
Denison Hydraulics HF-0, -1, -2	✓		✓	✓	✓
Eaton E-FDGN-TB002-E	✓		✓	✓	✓
Bosch Rexroth RDE 90235	✓		✓	✓	
MAG P-68 (ISO 32) MAG P-69 (ISO 68) MAG P-70 (ISO 46)	✓		✓	✓	
Engel			✓		
Battenfeld	✓		✓	✓	✓
Beltramelli	✓		✓	✓	✓
Bekum			✓		
Demag				✓	
Danieli			✓	✓	
Woojin Plaimm	✓		✓		
Arburg			✓		

Gazpromneft Hydraulic

A series of hydraulic oils designed to replace GOST level lubricants (IGP, IGS) and to be used in conditions of positive temperatures.

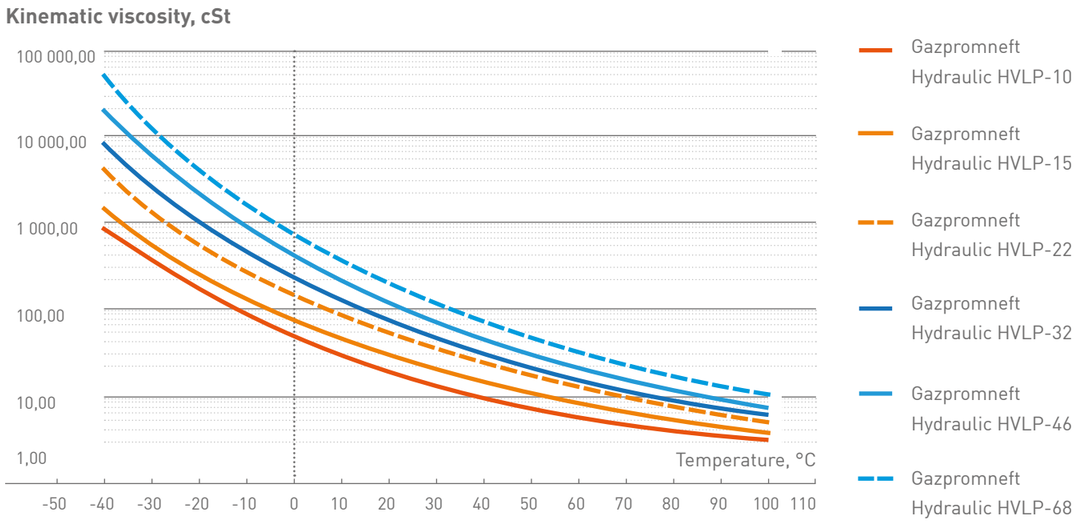
SPECIFICATIONS:
DIN 51524 PART 2 (HLP).

VISCOSITY GRADES ISO VG:
32, 46, 68, 100.

Specifications valid through 2024. Check gazpromneft-oil.ru for actual specifications/approvals and detailed information.

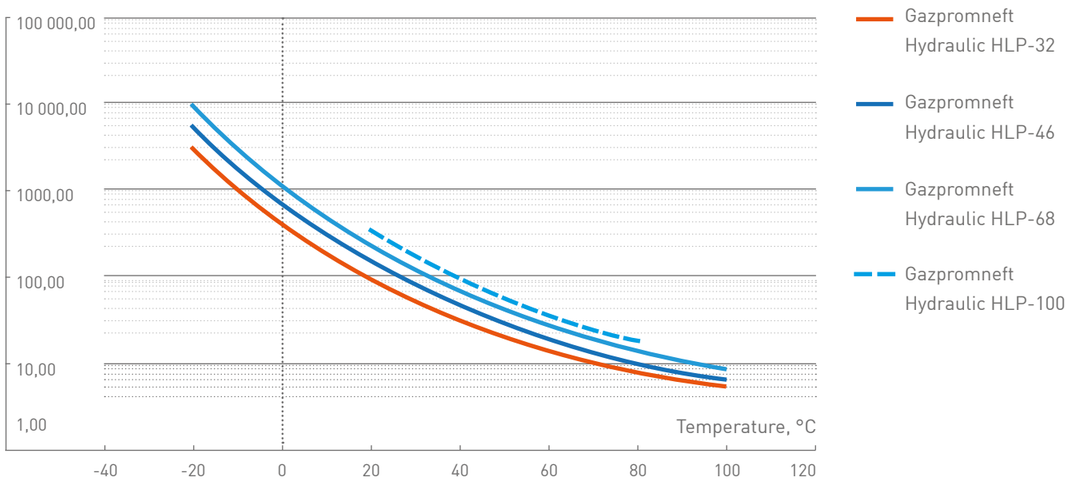
Gazpromneft Hydraulic HVLP

Dependence of kinematic viscosity on temperature.
Gazpromneft Hydraulic HVLP viscosity grades.



Gazpromneft Hydraulic HLP

Dependence of kinematic viscosity on temperature.
Gazpromneft Hydraulic HLP viscosity grades.



Specifications valid through 2024. Check gazpromneft-oil.ru for actual specifications/approvals and detailed information.

7.4. Industrial gear oils

Product name, ISO viscosity grade	Base stock	Oxidation stability	Anticorrosion protection	Anti-wear properties	Low temperature properties	Extreme Pressure properties	Elastomer compatibility
Gazpromneft Reductor PAO Synth 150, 220, 320, 460, 680	PAO	■■■■	■■■	■■■	■■■■	■■■	■■■
Gazpromneft Reductor F Synth 150, 220, 320, 460, 680		■■■	■■■	■■■	■■■	■■■	■■■
Gazpromneft Reductor CLP 68, 100, 150, 220, 320, 460, 680		■■	■■■	■■	■	■■■	■■
Gazpromneft Reductor WS 100, 150, 220		■■	■■	■■	■■	■■	■■
Gazpromneft Reductor ITD 68, 100, 150, 220, 320, 460, 680		■	■	■	■	■■	■■
GOST standard products							
Conventional oils ITD, ISP, ISPi, ITP series		■	■	■	■	■	■

PAO Synthetic PAO oil

Synthetic oil

Mineral oils

Specifications valid through 2024. Check gazpromneft-oil.ru for actual specifications/approvals and detailed information.

Gazpromneft Reductor F Synth

Series of synthetic gear oils designed for use in modern industrial gearboxes operating under severe operating conditions, including those manufactured by Flender. Their synthetic base stock provides an extended operating temperature range both at high and low ambient and operating temperatures. Besides, when compared to mineral products, Gazpromneft Reductor F Synth synthetic oils are capable to withstand much longer drain intervals.

ISO VISCOSITY GRADES:
150, 220, 320, 460.

SPECIFICATIONS:
DIN 51517 Part 3; AGMA 9005-E02; AIST 224; ISO 12925-1 (CKD); Flender; Hansen Industrial Transmissions NV; IEC 61400-4.

Gazpromneft Reductor CLP

Series of gear oils designed for use in modern industrial gearboxes operating under severe operating conditions. They are also suitable for gearboxes equipped with circulating lubrication systems or with spray lubrication.

ISO VISCOSITY GRADES:
68, 100, 150, 220, 320, 460, 680.

SPECIFICATIONS:
DIN 51517 Part 3 (CLP); AGMA 9005-E02; AIST 224; David Brown S1.53.101(E); Danieli (except for viscosity grades ISO 68 and 100); Fives Cincinnati P-77 (for viscosity grade ISO 150); Fives Cincinnati P-74 (for viscosity grade ISO 220); ISO 12925-1 (CKC); ISO 6743-6 (L-CKC/CKD).

Gazpromneft Reductor WS

Series of special gear oils designed for all-season use in heavily loaded industrial gearboxes, including those operating in unheated rooms. They combine compliance with the requirements of DIN 51517 Part 3 and improved low-temperature properties, which ensures the performance of the drive equipment all year round.

ISO VISCOSITY GRADES:
100, 150, 220.

SPECIFICATIONS:
DIN 51517 Part 3.

Gazpromneft Reductor ITD

A series of gear oils produced with a modern additive package, thanks to which they meet the requirements of DIN 51517 Part 3. They are an excellent substitute for GOST level oils (ITD, ICP, etc.).

ISO VISCOSITY GRADES:
68, 100, 150, 220, 320, 460, 680.

SPECIFICATIONS:
DIN 51517 PART 3.

Specifications valid through 2024. Check gazpromneft-oil.ru for actual specifications/approvals and detailed information.

7.5. Compressor oils

Product name, ISO viscosity grade	Deposit formation control	High temperature stability	Rotary compressor application	Piston compressor application	Low temperature applications
Gazpromneft Compressor F Synth					
46, 68	■■■	■■■	✔		■■■
Gazpromneft Compressor S Synth					
46, 68	■■□	■■□	✔		■■□
100, 150	■■□	■■□		✔	■■□
Gazpromneft Compressor Oil					
46, 68	■■□	■□□	✔		■□□
100, 150, 220, 460	■■□	■□□		✔	■□□
GOST standard products					
Kp-8S providing enhanced stability	■□□	■□□	✔		■□□
KS-19P A	■□□	■□□		✔	■□□

Specifications valid through 2024. Check gazpromneft-oil.ru for actual specifications/approvals and detailed information.

Gazpromneft Compressor F Synth

Series of synthetic compressor oils for modern screw and vane compressors operating in harsh conditions (discharge temperature up to 220 °C). The synthetic base stock provides excellent protection against sludge and deposit formation. Compared to mineral and semisynthetic oils, they have an improved oxidation stability that supports application for extended drain intervals. Quickly separate water and protect compressor parts from corrosion.

ISO VISCOSITY GRADES:
46, 68.

SPECIFICATIONS:
DIN 51506 VDL; ISO 6743 DAJ; ROTORCOMP VERDICHTER GmbH.

Gazpromneft Compressor S Synth

Series of semi-synthetic compressor oils designed for use in modern volumetric and dynamic air compressors (piston, screw, plate), which operate in harsh conditions (discharge temperature up to 220 ° C). Due to the use of a synthetic base component, the oils of this series provide high protection against the formation of deposits and have an extended service life compared to mineral oils. Quickly separate water and protect compressor parts from corrosion.

ISO VISCOSITY GRADES:
46, 68, 100, 150.

SPECIFICATIONS:
DIN 51506 VDL; JSC Compressor Plant "Borets" (ISO VG 100 and 150 only); ROTORCOMP VERDICHTER GmbH.

Gazpromneft Compressor Oil

A series of compressor oils designed for use in volumetric and dynamic air compressors (reciprocating, screw, plate) that operate in harsh conditions (discharge temperature in mobile installations up to 220 ° C, in stationary up to 160 ° C). The combination of high-quality base components and carefully selected additives protects compressor parts from deposits and corrosion..

ISO VISCOSITY GRADES:
46, 68, 100, 150, 220, 460

SPECIFICATIONS:
JSC UKZ; DIN 51506 VCL (except ISO 460); JSC "Sumy NGO"; ROTORCOMP VERDICHTER GmbH.

Kp-8S providing enhanced stability

Compressor oil containing additives for lubrication of centrifugal and turbo compressors, including "turbine – gearbox" systems. Applicable on some ammonia pump-out compressors.

KS-19p A

Compressor oils containing additives for application on piston compressors operated under moderate and high pressure. Applicable on rotary compressors if the product fits the equipment manufacturer's viscosity grade requirements. Suitable for single or multistage compressors operating in various industries, compressing air or other insoluble gases.

Specifications valid through 2024. Check gazpromneft-oil.ru for actual specifications/approvals and detailed information.

Greases

Agriculture and farming machinery operates under severe load conditions and in a contaminating environment. All lubrication systems are periodically subjected to water, moisture, dust, plant debris, continuous loads and elevated temperatures. To protect the equipment's components in such conditions, advanced performance greases are mandatory.

Gazpromneft – Lubricants developed a wide range of products suitng the agricultural equipment's needs. High-tech additives and solid lubricants used for grease production provide an adequate performance of all grease lubricated units.

8.1. Primary Classifications of Greases

Classification of greases according to DIN 51 502

This classification divides greases into groups according to their properties – composition, temperature range of application, consistency etc. A specific code is assigned to each level of performance, making the grease choice far easier.

K PF 3 G-20
1 2 5 4 3

1 Purpose of grease

K	Grease lubricants for anti-friction bearings, plain bearings and sliding faces according to DIN 51825
G	Grease lubricants for enclosed drives according to DIN 51826
OG	Grease lubricants for open transmissions
M	Lubricants for plain bearings and seals

2 Components (base oils, additives etc.)

P	EP additive
F	Solid additive
E	Ester, organic
FK	Perfluor liquids
HC	Synthetic hydrocarbons
PH	Ester of phosphoric acid
PG	Polyglycols
SI	Silicon oils
X	Others

3 Code number for lower service temperatures

Lower operating temperatures lowers the grease's properties reliability.

4 Code letter (reaction to water)

Code letter	Limit of maximum operating temperatures, °C	Resistance to water washout, °C according to DIN 51807*
C	60	0 at 40 °C or 1 at 40 °C
D		2 at 40 °C or 3 at 40 °C
E	80	0 at 40 °C or 1 at 40 °C
F		2 at 40 °C or 3 at 40 °C
G	100	0 at 90 °C or 1 at 90 °C
H		2 at 90 °C or 3 at 90 °C
K	120	0 at 90 °C or 1 at 90 °C
M		2 at 90 °C or 3 at 90 °C
N	140	By agreement
P	160	
R	180	
S	200	
T	220	
U	>220	

5 NLGI Grade

NLGI Grade	Penetration at 25 °C	Consistency	Application
000	445–475	Very soft (like viscous oil)	Closed gear systems / central lubrication systems
00	400–430		
0	355–385	Soft – semifluid	
1	310–340	Soft	Closed gear systems / central lubrication systems / rolling and sliding bearings
2	265–295	Soft	Sliding bearings / rolling bearings / sliding surfaces / central lubrications systems
3	220–250	Firm	Sliding bearings / rolling bearings
4	175–205	Hard	Rolling bearings / water pump sealing
5	130–160	Very hard	Open gear systems / water pump sealing
6	85–115		

* 0 — no change; 1 — slight change; 2 — moderate change; 3 — major change.

8.2. Product range of Gazpromneft Greases

Physical and chemical properties	Method	Gazpromneft Grease Synth LX EP 2	Gazpromneft Premium Grease EP				Gazpromneft Grease LX EP		Gazpromneft Grease LTS		Gazpromneft Grease L EP					Gazpromneft Grease L Moly EP 2	Gazpromneft Grease LTS Moly EP 2, Moly EP 1 All Seasons		Gazpromneft Premium Grease HD	Gazpromneft Grease HighSpeed EP 3	Gazpromneft Grease Nord Moly	Gazpromneft Offroad Grease CS 2	Gazpromneft Grease Reductor LTS EP 00	Gazpromneft EP		Gazpromneft Grease L 2	Litol-24 Gazpromneft Литол	CVJ-4M Gazpromneft plastic lubricant for CVJ
			00	0	1	2	1	2	1	2	00	0	1	2	3		1	2						2	3			
Code according to DIN 51502	DIN 51502	KPHC 2 N-50	KP 00 N-50	KP 0 N-50	KP 1 P-40	KP 2 P-40	KP 1 P-30	KP 2 P-30	KP 1 K-30	KP 2 K-30	KP 00 K-30	KP 0 K-30	KP 1 K-30	KP 2 K-30	KP 3 K-30	KPF 2 K-30	KPF 2 K-30	KPF 1 K-30	KPF 2 N-25	KP 3 N-40	KPF 0 K-50	KP 2 S-30	GP 00 K-40	KP 2 K-40	KP 3 K-40	K 2 K-30	K 3 K-40	KPF 2 K-40
NLGI grade	ASTM D217	2	00	0	1	2	1	2	1	2	00	0	1	2	3	2	2	1	2	3	0	2	00	2	3	2		
Operating temperature range, °C		-50 up to +150	-50 up to +140		-40 up to +160		-30 up to +160		-30 up to +120*		-30 up to +120*					-30 up to +120*	-30 up to +120*		-25 up to +150	-40 up to +140	-50 up to +120*	-30 up to +200	-40 up to +120	-40 up to +130*		-40 up to +120	-40 up to +120	-40 up to +120
Color	Visually	Light Beige	Lite Brown				Blue		From Light Yellow to Amber		Amber					Dark Grey			Grey	Cream	Dark Grey	From Light Yellow to Amber		Amber		From Lite Brown to Dark Brown	Light Beige	Dark Grey
Thickener		Lithium Complex Soap					Lithium-Calcium Soap		Lithium soap							Lithium soap	Lithium-Calcium Soap		Lithium Complex Soap			Calcium Sulfonate	Lithium-Calcium Soap	Lithium soap				
Solid additives		–	–				–		–		–					Molybdenum Disulfide			–	–	Molyb-denum Disul-fide	–	–	–		–	–	Molybdenum Disulfide
Drop Point, °C	ASTM D2265/ GOST 6793	> 250	below norm	> 210	> 250	> 250	> 250	> 250	> 180	> 180	> 170	> 170	> 180	> 180	> 190	> 180	> 180	> 170	> 250	> 250	> 210	> 300	> 160	> 190	> 200	> 180	> 185	190
Base oil		Synthe-tic	Semi-synthetic				Mineral.		Mineral							Mineral				Group III base oil		Mineral						
Kinematic viscosity of Base Oil at 40 °C, mm^2/s	ASTM D445	100	100	100	100	100	220	220	220	220	160	160	160	160	160	160	220	220	400	45	20	>400	600	70	70	160	–	–
4-ball welding load, N	GOST 9490	2800	3200	3200	3200	3200	3000	3000	2800	2800	2400	2400	2400	2400	2400	2800	4136	4136	5508	2400	4000	4000	4000	2450	2450	1600	1381	4900
4-ball wear scar diameter, mm	GOST 9490	0,6	0,5	0,5	0,5	0,5	0,6	0,6	0,6	0,6	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,6	0,6	0,5	0,7	0,5	0,5	0,5	–	–

* Short peaks – up to +150 °C.

Specifications valid through 2024. Check gazpromneft-oil.ru for actual specifications/approvals and detailed information.

Gazpromneft Grease LTS 2

Multi-purpose lithium-calcium thickened grease containing an extreme pressure (EP) additive package. Applicable for lubricating equipment units operated under particularly severe loads.

Advantages

- Outstanding performance characteristics in temperature ranges between -30 °C up to +120 °C, short peaks up to +150 °C are permissible.
- Excellent oxidation stability provides extended re-lubrication intervals in high temperature operating conditions.
- **MAINTAINS HIGH WATER WASHOUT RESISTANCE**
- UNIVERSAL — The grease's multi-purpose functionality promotes its application on various types of equipment units, consequently reducing the number of different products in stock and hence the cost.

Gazpromneft Grease LTS Moly EP 2

High performance grease based on lithium-calcium soap containing extreme pressure additives (EP additives) and a solid filler (molybdenum disulfide). It is used to lubricate friction units of equipment exposed to extremely high loads and operated in extremely harsh operating conditions, including in the presence of water.

Advantages

- The presence of molybdenum disulfide ensures the protection of surfaces even when using an insufficient amount of lubricant or in conditions of special contamination of the working environment
- **MAINTAINS HIGH WATER WASHOUT RESISTANCE**
- Guarantees a long service life when working at high temperatures due to excellent oxidation resistance
- Excellent performance in the temperature range from -30 to +120 °C, with a short-term increase to +150 °C

Gazpromneft Grease LX EP 2

Multi-purpose grease containing lithium-complex soap and an extreme pressure (EP) additive package for lubricating equipment units operating at high temperatures and particularly high load conditions.

Advantages

- High performance properties within a -30 °C up to +160 °C temperature range.
- Extended re-lubrication intervals, high oxidation stability.
- Provides outstanding sealing properties, accordingly prevents water, dirt and dust ingress in equipment units.
- Maintains highly effective corrosion inhibition even in extremely harsh operating conditions such as permanent moisture, cold or hot water washouts.
- GREASE — Provides an especially high mechanical stability thereby suitable to be applied on strongly vibrating equipment.

Service Fluids

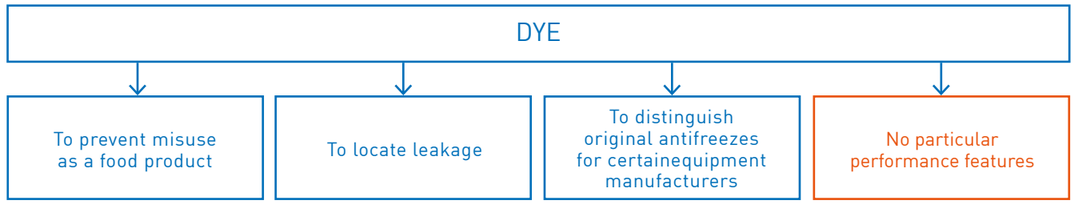
9.1. Antifreezes

Agricultural and farming machinery is often operated in high ambient temperatures and extreme load conditions, putting a strain on the engine and the cooling system. To maintain optimal engine temperature and prevent the system from overheating adequate coolants must be applied.

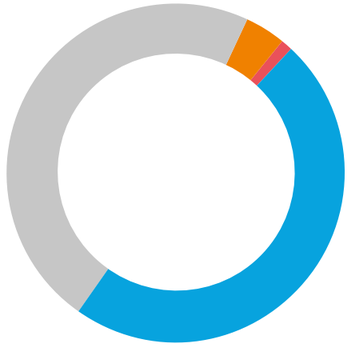
G-Energy and Gazpromneft antifreeze product range covers the original equipment manufacturers' specific needs. Besides, these products are adapted to suit as many OEM requirements as possible. Antifreezes are divided into four major corrosion inhibitor additivation technology groups: Carboxylates (OAT), Lobrid (X-OAT), Hybrid (HOAT) and conventional (IAT).

Antifreeze knowledge base

1 Color. Specific coolant color is obtained by adding dye.



2 High quality antifreeze



36–53 % ethylene glycol

0,002 % dye

45–60 % water

2–4 % additives

ETHYLENE GLYCOL

Provides:

- Increased boiling temperature;
- Decreased freezing temperature;
- Cooling system protection against frozen coolant expansion.

! According to OEM specifications no fatty alcohols (methanol, ethanol etc.) are allowed to be used in the formula – these substances provoke corrosion, pose a fire hazard and impair the heat transfer. Methanol is aggressive to many sealant elastomers used by the automotive industry.

ADDITIVE PACKAGE

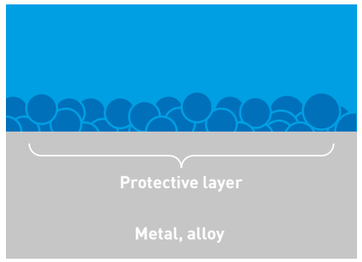
Protection against:

- Corrosion and cavitation;
- Water pump and cooler leakage;
- Thermostat failures.

! Due to the combination of different metals, alloys and polymers in the cooling system of various equipment manufacturers, different additive technology packages are applied, therefore formulating a unified coolant is technically impossible.

3 Main additive types (technologies)

Traditional technology (IAT)

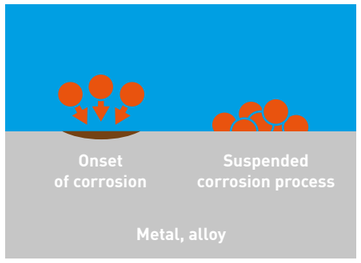


Coating the entire cooling system's surface with a thick (few microns) protective layer preventing bore sleeve cavitation.

+ Coating the entire cooling system's surface with a thick (few microns) protective layer preventing bore sleeve corrosion.

– Rapid depletion of additives, impaired heat removal, poor stability of the protective coat in modern engines due to the system's high fluid circulation velocity.

Carboxilate technology

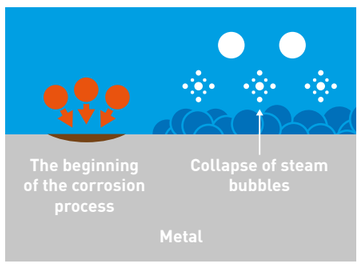


Building a protective layer solely over the corroded area. Slow additive depletion and extended fluid service life.

+ Building a protective layer solely over the corroded area. Slow additive depletion and extended fluid service life.

– High cost. Incompatibility with some earlier technology polymers.

Hybrid and Lobrid technologies



Inorganic additives prevent cavitation on metallic surfaces and build a protective layer, while organic additives are active over corroded areas. Accordingly, a rational use of corrosion inhibiting additive is achieved.

+ Combines the advantages of conventional and carboxilate technologies.

– The service of life of such antifreeze is a bit shorter than the one with a fully carboxilate technology.

● Inorganic corrosion inhibitors ● Organic corrosion inhibitors

4 Main classifications of Coolants

Common industrial ASTM standards

ASTM D3306	Basic properties. Light duty operating conditions. Production technology of coolants complying to ASTM D3306 may be whichever of these – OAT, IAT, Hybrid, Lobrid.
ASTM D4985	ASTM D3306 + additional tests. Heavy duty operating conditions. Production technology of coolants complying to ASTM D4985 may be whichever. Complementary to ASTM D3306 requirements. Provides enhanced corrosion inhibition.
ASTM D6210	ASTM D4985 + additional anti-cavitation protection of many engine bore sleeves. Heavy duty operating conditions. Complementary to ASTM D4985 requirements.

Classification basis

ASTM D3306 **ASTM D4985** **ASTM D6210**

Approval / OEM specification = **ASTM Dxxxx** + additional OEM requirements.

Example of requirements issued by original equipment manufacturers (OEM) such as Caterpillar ELC (EC-1)

ASTM D3306	Additional requirements and tests

The manufacturer of internal combustion engines knows their cooling system's specificities (for instance tendency to cavitation of bore sleeves), and therefore often sets additional requirements to antifreeze fluids. Industrial standards like ASTM express the minimum requirements placed on coolant properties.

The coolant's top quality is confirmed by internationally recognized OEMs.

9.1.1. Product range of G-Energy antifreezes

Product name	Additive technology	Conformity to ASTM's industry standards	Approvals	Color	Application
G-Energy Antifreeze SNF	OAT	ASTM D4985	MAN 324-SNF MB 325.3 MWM	Red	For light and heavy operating conditions. Lightly and heavily loaded engines. Comply with DAF, MTU, Volvo Trucks requirements.
G-Energy Antifreeze		ASTM D3306		Green	For light operating conditions and equipment made in Russia. Comply with KAMAZ, LIAZ, PAZ, GAZ, NEFAZ requirements.
G-Energy Antifreeze NF	Hybrid	ASTM D4985	MAN 324-NF MB 325.0 DEUTZ DQC CA-14 JENBACHER TI 1000-0201	Blue-Green	For light and heavy operating conditions. Comply with Liebherr, MWM, Volvo Trucks requirements.
G-Energy Antifreeze Si-OAT	Lobrid		MB 325.5 MAN 324-SI-OAT	Purple	For light and heavy operating conditions. Comply with Cummins CES 14603, Deutz, Liebherr, MWM, Mercedes-Benz, MTU requirements.
G-Energy Antifreeze HD		ASTM D4985 ASTM D6210		Purple	For light and heavy operating conditions. Comply with Caterpillar CAT EC-1, Cummins and Detroit Diesel requirements.

G-Energy Antifreeze SNF

Concentrated and premix coolant based on ethylene glycol and designed according to OAT technology (organic acid salt based corrosion inhibitors). OAT technology antifreezes are widely used for engines of European and Japanese origin, such as: John Deere, Case, New Holland, Claas, Challenger, Deutz Fahr (according to OEM requirements the instruction manual must be checked before application).

PRODUCT OPTIONS:

- **G-Energy Antifreeze SNF** — concentrated coolant for dilution.
- **G-Energy Antifreeze SNF 40** — premixed coolant with anti-freezing protection at -40 °C. 50:50 ratio concentrated coolant and water.

SPECIFICATIONS:
MB 325.3; MTU MTL 5048; MWM 2091/15; MAN 324 SNF; VW/ Audi/Seat/Skoda TL 774-D/F (G-12/G-12+); Bentley TL 774-D/F; DAF MAT 74002; Deutz DQC CB-14; Jaguar (built as from 1999); Lamborghini TL 774-D/F; MINI Cooper D (built as from 2007); Porsche (built as from 1996); Ford WSS-M97B44-D; Great Wall; Fiat; Case New Holland; Claas; Caterpillar; MWM (Deutz Power Systems) 0199-99-2091; GE Jenbacher TA 1000-0200; Deutz 0199-99-1115; DDC Power Cool Plus; GM 6277 M; W□rtsil□ 32-9011; John Deere JDM H5; Komatsu KES 07.892; Liebherr MD1-36-130; Mazda; Isuzu; Volvo VCS 418-0001; ASTM D3306; ASTM D4985; ASTM D6210; ASTM D7583; BS 6580:2010; KSM 2142; JASO M325; JIS K2234; AS 2108-2004; SAE J1034; AFNOR SNF R15-601; □NORM V 5123; CUNA NC 956-16; SANS 1251:2005; SH 0521-1999.

G-Energy Antifreeze NF

Concentrated and premix coolant based on ethylene glycol and designed according to hybrid technology (organic acid salt and silicate based corrosion inhibitors). Hybrid technology antifreezes are widely used for engines of European origin, such as: Mercedes-Benz, Deutz Farr (according to OEM requirements the instruction manual must be checked before application).

PRODUCT OPTIONS:

- **G-Energy Antifreeze NF** — concentrated coolant for dilution.
- **G-Energy Antifreeze NF 40** — premixed coolant with anti-freezing protection at -40 °C. 50:50 ratio concentrated coolant and water mixture.

SPECIFICATIONS:
MB 325.0; Deutz DQC CA-14; MAN 324 NF; Jenbacher TA-Nr. 1000-0201; Liebherr Machines Bulle TLV 035; Liebherr Machines Bulle TLV 23009 A; Porsche 924, 928, 944, 968; Saab 6901599; General Motors B 040 0240; BMW N 600 69.0; Ford; General Motors; Iveco; VW TL 774-C (G-11); ASTM D3306; ASTM D4985; AS 2108-2004; □NORM V 5123; CUNA NC 956-16; SANS 1251:2005; BS 6580-2010; GOST 33591-2015.

G-Energy Antifreeze HD

Concentrated and premix coolant based on ethylene glycol and designed according to Lobrid technology (organic acid salts, nitrites and molybdates based corrosion inhibitors). Lobrid technology antifreezes are widely used for heavy duty engines such as: John Deere, Claas, Case, New Holland, Challenger (according to OEM requirements the instruction manual must be checked before application).

PRODUCT OPTIONS:

- **G-Energy Antifreeze HD** — concentrated coolant for dilution.
- **G-Energy Antifreeze HD 40** — premixed coolant with anti-freezing protection at -40 °C. 50:50 ratio concentrated coolant and water mixture.

SPECIFICATIONS:
Caterpillar ELC (EC-1); Cummins 90T8-4; Detroit Diesel 7SE298; Freightliner 48-22880; General Motors 1825, 1899M, 6277M; ASTM D6210; ASTM D3306; ASTM D4985; SAE J1034; J1038; TMC RP329; GOST 33591-2015.

Specifications valid through 2019. Check www.g-energy.org for actual specifications/approvals and detailed information.

G-Energy Antifreeze

Concentrated and premix coolant based on ethylene glycol and designed according to carboxylate technology. Doesn`t contain silicates, nitrites, amines, phosphates and borates.

PRODUCT OPTIONS:

- **G-Energy Antifreeze** — concentrated coolant for dilution.
- **G-Energy Antifreeze 40** — premixed coolant providing anti-freezing protection at -40 °C. 50:50 ratio concentrated coolant and water mixture.
- **G-Energy Antifreeze 65** — premixed coolant providing anti-freezing protection at -65 °C. 65:35 ratio concentrated coolant and water mixture.

SPECIFICATIONS:
JSC AVTOVAZ; GAZ Ltd.;
JSC KAMAZ; JSC Avtodizel (YAMZ);
ASTM D3306; ASTM D4340
BS 6580-2010; GOST 33591-2015.

G-Energy Antifreeze Si-OAT

Concentrated and premix coolant based on ethylene glycol and designed according to Lobrid technology. Doesn`t contain nitrites, amines, phosphates and borates.

PRODUCT OPTIONS:

- **G-Energy Antifreeze Si-OAT** — concentrated coolant for dilution.
- **G-Energy Antifreeze Si-OAT 40** — premixed coolant with anti-freezing protection at -40 °C. 50:50 ratio concentrated coolant and water mixture.

SPECIFICATIONS:
VW TL 774-G (G12++);
Cummins CES 14603;
MAN 324 Si-OAT; MB 325.5;
MTU MTL 5048;
ASTM D3306, D4985;
GOST 33591-2015.

9.1.2. Product range of Gazpromneft coolants

Product name	Additive technology	Conformity to ASTM's industry standards	Approvals	Color	Application
Gazpromneft ANTIFREEZE SF 12+	OAT	ASTM D4985	MAN 324-SNF	Red	Light and heavy duty operating conditions. Comply to Mercedes-Benz and MTU requirements.
Gazpromneft ANTIFREEZE BS		ASTM D3306		Green	Light duty operating conditions. Designed for vehicles made in Russia and abroad. Applicable for postwarranty maintenance.
Gazpromneft ANTIFREEZE	Conven-tional	ASTM D4985 ASTM D6210	JSC Avtodizel (YAMZ) JSC Kamaz JSC UKH MMZs	Red	Light and heavy duty operating conditions. Enhanced protection against cavitation. Complies to Caterpillar, Cummins, Detroit Diesel, Freightliner, John Deere requirements.
Gazpromneft TOSOL				Blue	Used for various equipments at postwarranty period.

Gazpromneft ANTIFREEZE SF12+

Concentrated and premix coolant based on ethylene glycol and designed according to OAT technology (organic acid salt based corrosion inhibitors).

PRODUCT OPTIONS:

- **Gazpromneft ANTIFREEZE SF12+** — concentrated coolant for dilution.
- **Gazpromneft ANTIFREEZE SF12+ 40** — premixed coolant with anti-freezing protection at -40 °C. 50:50 ratio concentrated coolant and water mixture.
- **Gazpromneft ANTIFREEZE SF12+ 60** — premixed coolant with anti-freezing protection at -50 °C. 60:40 ratio concentrated coolant and water mixture.

SPECIFICATIONS:
MB 325.3; MAN 324 TYP SNF;
VW TL 774-F (G12+); ASTM D3306;
ASTM D4985; Afnor NF R15-601;
BS 6580-2010; SAE J1034; GOST 33591-2015.

Gazpromneft ANTIFREEZE

Concentrated and premix coolant based on ethylene glycol and designed according to traditional inorganic acid salt technology (low content of silicate additives and nitrites). Antifreezes of this series are widely used for engines such as: John Deere, New Holland, Case (according to OEM requirements the instruction manual must be checked before application).

PRODUCT OPTIONS:

- **Gazpromneft ANTIFREEZE** — concentrated coolant for dilution.
- **Gazpromneft ANTIFREEZE 40** — premixed coolant with anti-freezing protection at -40 °C. 50:50 ratio concentrated coolant and water mixture.
- **Gazpromneft ANTIFREEZE АРКТИК** — premixed coolant providing enhanced antifreezing protection at -55 °C. 60:40 ratio concentrated coolant and water mixture.

SPECIFICATIONS:
Cummins CES 14603; Caterpillar; Detroit Diesel 7SE298; General Motors 6038M; John Deere 8650-5; Case Corp. MS1710; New Holland 9-86; Navistar; Freightliner 48-22880; PACCAR; MACK; Waukesha 4-1974D; JSC Avtodizel (YAMZ); JSC Kamaz; JSC UKH MMZ; GAZ Ltd.; JSC AVTOVAZ; ASTM D3306; ASTM D4985; ASTM D6210; TMC RP329; SAE 1941; BS 6580-1992; GOST 33591-2015.

Gazpromneft ANTIFREEZE (BS)

Concentrated and premix coolant based on ethylene glycol and designed according to traditional inorganic acid salt technology (low content of silicate additives and nitrites). Antifreezes of this series are widely used for engines such as: John Deere, New Holland, Case (according to OEM requirements the instruction manual must be checked before application).

PRODUCT OPTIONS:

- **Gazpromneft ANTIFREEZE (BS)** — concentrated coolant for dilution.
- **Gazpromneft ANTIFREEZE (BS) 40** — premixed coolant with anti-freezing protection at -40 °C. 50:50 ratio concentrated coolant and water mixture.

SPECIFICATIONS:
ASTM D3306, D4985; GOST 33591-2015.

9.1.3. Antifreeze according to GOST quality standard

Gazpromneft TOSOL

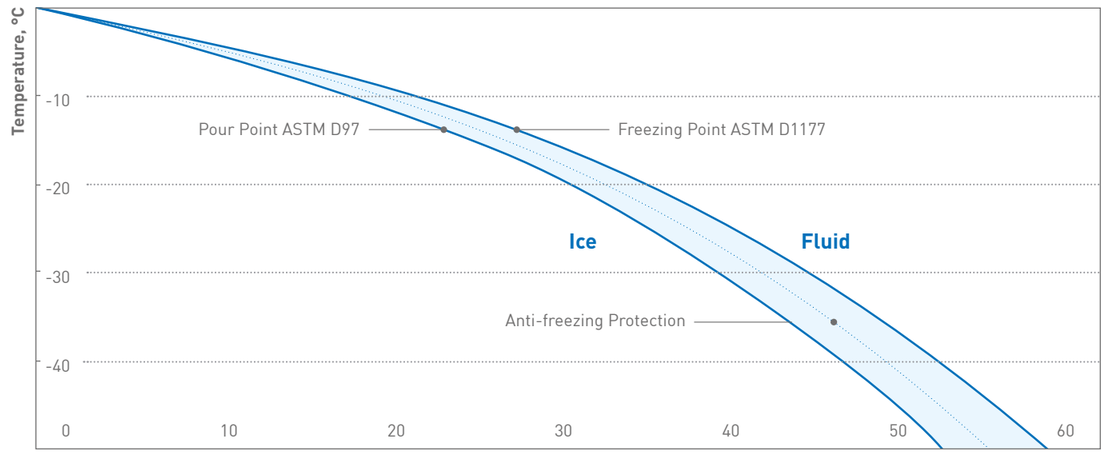
Concentrated and premix coolant based on ethylene glycol, while the additive package on conventional corrosion inhibitor technology.

PRODUCT OPTIONS:

- **Gazpromneft TOSOL** — concentrated coolant for dilution.
- **Gazpromneft TOSOL 40** — premixed coolant with anti-freezing protection at -40 °C.
- **Gazpromneft TOSOL 65** — premixed coolant with anti-freezing protection at -65 °C.

SPECIFICATIONS:
GOST 28084-89; GOST 33591-2015.

9.1.4. Diagram: dependency of anti-freezing protection temperatures* on concentration



* Anti-freezing protection temperature – average value between Freezing Point (first ice crystals) and Pour Point (loss of fluidity).

9.2. Brake fluids

Brake Fluid transfers braking power from the vehicle's control levers toward its brake pads. The fluid's quality is crucial for an effective and safe agricultural equipment's operating conditions. During service, the brake fluid accumulates particles of wear and corrosion, while exposed to moisture contamination by air. Therefore, for a long and safe high quality operation, the product must be chosen carefully and maintenance done accordingly to the OEM's instruction manual.

G-Energy Expert DOT-4

High quality brake fluid for vehicles according to DOT 4 requirements. Operating temperature conditions in the range of -50 °C up to +50 °C degrees. Application according to the original equipment manufacturer's instructions.

SPECIFICATIONS:
FMVSS 116; ISO 4925; SAE J1704; JSC AVTOVAZ; JSC GAZ; JSC Kamaz; JSC PAZ; JSC UAZ.

Gazpromneft DOT 4

High quality brake fluid for vehicles according to DOT 4 requirements. Operating temperature conditions in the range of -50 °C up to +50 °C degrees. Application according to the original equipment manufacturer's instructions.

SPECIFICATIONS:
ISO 4925; SAE J1704; FMVSS 116.

Specifications valid through 2024. Check www.gazpromneft-oil.com for actual specifications/approvals and detailed information.

Technical Support and Services

10.1. G-Energy Academy

G-Energy Academy is a unique system for training qualified personnel using the latest digital technologies, including virtual and augmented reality.

Work directions

G-Energy Academy

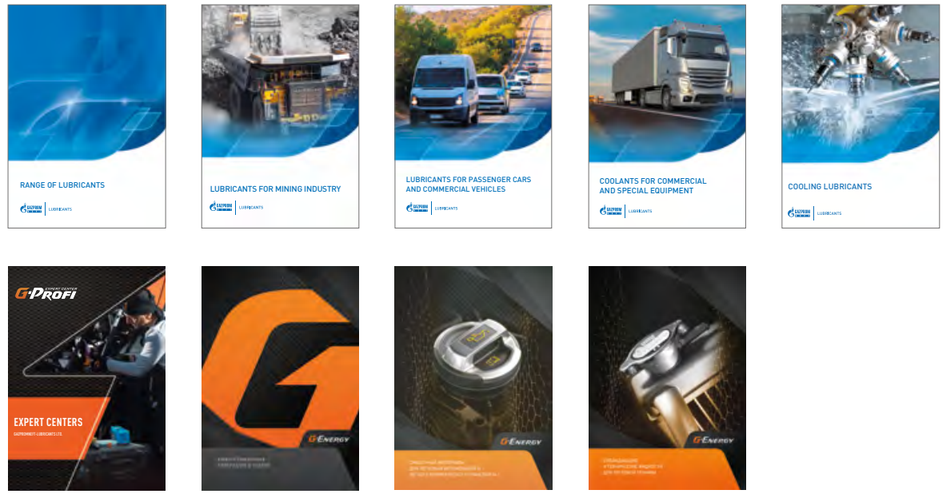
- Preparing online course
- Face-to-face trainings and webinars
- Developing product catalogs and leaflets
- Technical support (for the use of lubricants)
- Certification of distributor employees

Project coverage

All export countries

Information materials

30 publications in various areas



G-Energy Academy technical tools

PLAS — full product information (for internal users only)

GEA links — information and training platform for distributors (remote certification, online training and informational materials)

VR — 360° videos, virtual factory tour and VR-training sessions

3000 analogues
4500 product items

40+ video courses
1000+ users
22 countries

13 simulations and videos
10 languages of adaptation

Contact information

Techservice@gazprom-neft.ru

10.2. Technical Support and Services

Gazpromneft – Lubricants Ltd. technical services is a system providing reliability of equipment. These services help customer to establish optimal lubrication schedules and procurement routines as well as optimize equipment maintenance according to condition based maintenance rules.

Aim of services is to reveal advantages of Gazpromneft – Lubricants Ltd. products in combination with knowledge of our engineers and tools available.

Practically technical services carried out by our experts contain set of unique mobile diagnostic appliances for instant real-time evaluation of lubricant and condition of equipment. IRSpectrometer, XRF-Spectrometer and MiniViscometer can be operated right at a customer's production site.

IR-spectrometer

XRF-spectrometer

Mini-viscometer

OTS — OIL TESTING SERVICE

Testing and evaluation of lubricants.

PURPOSE

Intended for confirmation of lubricating properties of the products made by Gazpromneft – Lubricants Ltd. in real operating conditions of machinery. Changes of lubricant properties, additive package depletion and contaminations are measured.

ESSENCE

- Short-term monitoring of the use of oils of Gazpromneft-Lubricants Ltd. (1–3 oil changes).
- Sampling of working oil from 4-6 units of equipment.
- Sample testing in an independent laboratory center.

RESULTS

- Confirmation of the product's performance under specific operating conditions.
- Determination and recommendation of the optimal replacement interval taking into account operating conditions, the technical condition of the units and the quality of the fuel used.
- Determination of the need to carry out certain technical actions to improve the reliability of equipment operation.

OTS-SCREEN

Express-audit of lube applications at customers production site

PURPOSE

Evaluation of lubricant application effectiveness at customers production site by means of mobile diagnostic equipment.

ESSENCE

- Evaluation of conditions for storage, distribution and use of lubricants.
- Evaluation of the current state of equipment based on the results of analysis of the operating lubricant.
- Sampling of oil with different operating hours during the working day without interrupting the machines from the production process.
- Express analysis of samples using mobile diagnostic equipment.

RESULTS

- Operational assessment of the current state of the fleet units.
- Determination of the need for unscheduled diagnostic and repair measures.
- Monitoring compliance by technical services with the established maintenance regulations.

OTS-MONITORING

Performance monitoring of the products manufactured by Gazpromneft – Lubricants Ltd.

PURPOSE

Monitoring the condition of lubricants and units of enterprise equipment during operation.

ESSENCE

- Long-term monitoring of the use of oils of Gazpromneft-Lubricants Ltd.
- Sampling of used oils from units of the enterprise's equipment park, according to the approved sample, during maintenance.
- The samples are tested both using a mobile laboratory and in independent testing center
- Data on the results of tests for each machine are sent to your personal account on the service portal.

RESULTS

- Obtaining informationon the technical condition of the vehicle fleet units.
- Assessing the performance of the lubricant used under specific operating conditions in real time.
- Identifying the need to adjust lubricant replacement intervals.
- Detecting faults at early stages.

OIL EXPERT SERVICE

Survey and analysis of operational conditions

PURPOSE

Resolving of controversial situations related to application of Gazpromneft – Lubricants Ltd. products.

ESSENCE

- Retrospection of the operational situation: collection and data analysis of the event.
- Study of a sample of working oil and a sample of oil from the factory packaging in an independent laboratory center, assessment of changes of its parameters.
- Establishing the most probable causes of the operational situation.

RESULTS

- Technical report indicating the probable causes of the operational situation and recommendations for its prevention in the future.

Specifications of Lubricating Fluids

11.1. Classification of Engine Oils

API classification of heavy-duty diesel engine oils

CJ-4 Introduced in 2006. These oils are formulated for use on all applications with a diesel fuel sulfur content up to 500 ppm (0.05% by weight). Particularly effective for sustaining the system's emission control durability where particulate filters (DPF) and other advanced aftertreatment systems are used. Designed to provide enhanced protection against oil oxidation, shearing induced viscosity loss and oil aeration as well as protection against catalyst poisoning, particulate filter clogging, engine wear, piston deposits, deterioration of low- and high-temperature properties and soot-related viscosity increase.

CI-4 Introduced in 2002. For modern heavy-duty diesel engines designed to meet 2004 exhaust emission standards. CI-4 oils are formulated to sustain the engine's durability where exhaust gas recirculation (EGR) is installed and are intended for use with diesel fuels ranging in sulfur content up to 0.5% of weight. High oxidation stability, dispergency and antiwear properties provide a good soot control.

CH-4 Introduced in 1998. For high-speed diesel engines designed to meet 1998 exhaust emission standards. Provides high protection against corrosion and engine wear, as well as a good oil oxidation stability. CH-4 oils are specifically formulated for use with diesel fuels ranging in sulfur content up to 0.5% of weight.

CG-4 Introduced in 1994. Developed for heavy-duty on-highway and off-road diesel engines. Formulated to meet exhaust gas control requirements according to USA legislation.

CF-4 Introduced in 1990. Developed for high-speed diesel engines. Designed to provide enhanced control over piston deposits and minimize volatility related oil loses.

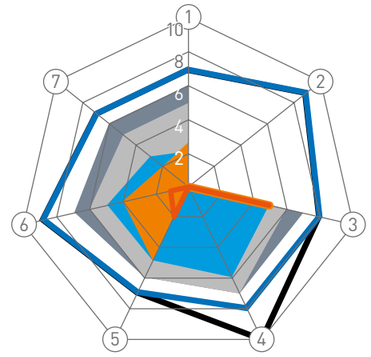
CD Introduced in 1955. This oil category is obsolete. Developed for older naturally aspirated and turbo charged diesel engines. Comparatively to earlier categories of this classification it sets a higher piston deposit formation and antiwear requirements. Not suitable for engines manufactured after 1994.

CC Introduced in 1951. This oil category is obsolete. Developed for older naturally aspirated and moderate pressure turbocharged engines. Not suitable for engines designed after 1990.

Specification comparison

● CJ-4 ● CI-4 ● CH-4 ● CG-4 ● CF-4 ● CD

① Protection against Bore Polishing
② DPF compatibility
③ Anti-corrosion protection
④ Oxidation stability and thickening inhibition
⑤ Prevention of hightemperature deposits
⑥ Soot control
⑦ Anti-wear properties



ACEA classification of heavy-duty diesel engine oils

ACEA E6 Oil providing excellent piston cleanliness control, wear and soot handling as well as lubricant stability. It is recommended for highly rated diesel engines that meet Euro VI emission requirements and running under very severe conditions, e.g. significantly extended oil drain intervals. Suitable for EGR engines with or without particulate filters and for engines fitted with SCR NOx reduction systems. E6 quality is strongly recommended for engines fitted with particulate filters and is designed for use in combination with low sulfur diesel fuels.

ACEA E9 Oils for heavy-duty diesel engines, produced using low-SAPS technology, meeting environmental standards up to and including Euro-6 and compatible with diesel particulate filters (DPF). It is recommended to use at standard drain intervals.

ACEA E4 Oil providing excellent control of piston cleanliness, wear, soot handling and lubricant stability. It is recommended for highly rated diesel engines that meet Euro V emission requirements and running under very severe conditions, e.g. significantly extended oil drain intervals according to the manufacturer's recommendations. It is suitable for engines without particulate filters, and for some EGR engines and some engines fitted with SCR NOx reduction systems.

ACEA E7 Oil providing effective control over piston cleanliness and bore polishing. It further provides excellent wear control, soot handling and lubricant stability. It is recommended for highly rated diesel engines that meet Euro V emission requirements and running under severe conditions. It is suitable for engines without particulate filters, and for most EGR engines and most engines fitted with SCR NOx reduction systems. Not suitable for extended drains. Replaces obsolete categories like ACEA E2, E3 and E5.

JASO classification of heavy-duty diesel engine oils

JASO DH-1 Heavy duty equipment diesel engine oil category for pump protection, anticorrosion protection, oxidation inhibition and soot control. These oils are recommended for engines without diesel particulate filters (DPF). High Sulfur fuels above 0,05% are admissible for engines lubricated by motor oils according to DH-1.

JASO DH-2 Heavy duty diesel oils for engines equipped with aftertreatment systems like diesel particulate filters (DPF) and catalysts. Requirements to anti-wear, sludge, anti-corrosion and soot control properties similar as set for JASO DH-1 oils.

According to The Lubrizol Corporation.

Engine oil specifications for Mercedes-Benz engines

MB-228.51 Engine oil specification for heavy-duty Mercedes-Benz engines with exhaust gas aftertreatment systems (including DPF). Extended drain intervals depending on operating conditions. Based on ACEA E6 requirements complemented by MB field trials.

MB-228.31 Engine oil specification for heavy-duty Mercedes-Benz engines with exhaust gas aftertreatment systems (including DPF). Standard drain intervals. Based on ACEA E9 and API CJ-4 requirements complemented by MB field trials.

MB-228.5 Engine oil specification for heavy-duty Mercedes-Benz engines according to UHPD. Extended drain intervals depending on operating conditions. Based on ACEA E4 requirements complemented by MB field trials.

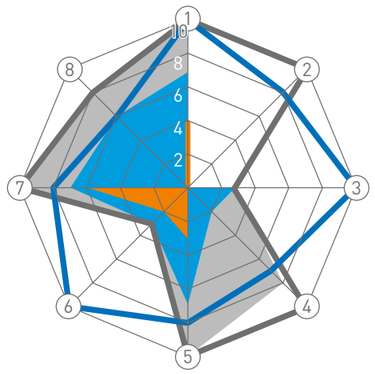
MB-228.3 Engine oil specification for heavy-duty Mercedes-Benz engines according to SHPD. Standard drain intervals. Based on ACEA E7 requirements complemented by MB field trials.

MB-228.1 Engine oil specification for heavy-duty Mercedes-Benz engines. Based on ACEA E2 requirements complemented by MB field trials.

Specification comparison

● MB-228.31 ● MB-228.51 ● MB-228.5 ● MB-228.3 ● MB-228.1

① Protection against Bore Polishing
② DPF compatibility
③ Anti-corrosion protection
④ Oxidation stability and thickening inhibition
⑤ Prevention of high-temperature deposits
⑥ Soot control
⑦ Anti-wear properties
⑧ Fuel economy



According to The Lubrizol Corporation.

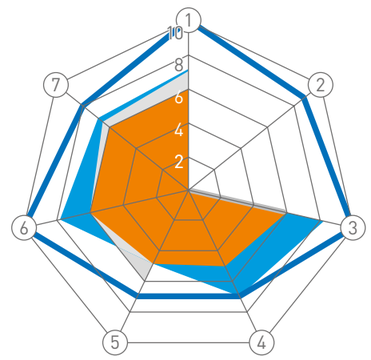
Engine oil specifications: Cummins enginest

CES 20081	Category developed for highly rated diesel engines equipped with an exhaust gas recirculation system (EGR). Compatible with diesel particulate filters (DPF). Developed on the basis of API CJ-4 with addition of Cummins specific tests.
CES 20078	Category developed for highly rated diesel engines equipped with an exhaust gas recirculation system (EGR). Compatible with diesel particulate filters (DPF). Developed on the basis of API CI-4 with addition of Cummins specific tests.
CES 20077	Category developed for highly rated diesel engines without an exhaust gas recirculation system (EGR), operating in extreme conditions outside North America. Developed on the basis of ACEA E7 with addition of Cummins specific tests.
CES 20076	Category developed for highly rated diesel engines without an exhaust gas recirculation system (EGR). Developed on the basis of API CH-4 with addition of Cummins specific tests.
CES 20074	Low ash oil specification intended for engines powered by gas.

Specification comparison

● CES 20081 ● CES 20078 ● CES 20077 ● CES 20076

① Protection against Bore Polishing
② DPF compatibility
③ Anti-corrosion protection
④ Oxidation stability and thickening inhibition
⑤ Prevention of hightemperature deposits
⑥ Soot control
⑦ Anti-wear properties



Engine oil specifications: Caterpillar engines

ECF-3	Low Ash technology oils for the latest Caterpillar engines. Compatible with diesel particulate filters (DPF). Developed on the basis of API CJ-4 requirements with additional Caterpillar tests. Comply with engine requirements according to Tier 4.
ECF-2	Engine oil category for Caterpillar engines, including engines equipped with ECERT and HEUI systems. Developed on the basis of API CI-4 requirements with additional Caterpillar tests.
ECF-1a	Engine oil category for Caterpillar engines, including engines equipped with ECERT and HEUI systems. Developed on the basis of API CH-4 requirements with additional Caterpillar tests.

According to The Lubrizol Corporation.

Engine oil specifications: Deutz engines

DQC IV LA	Low ash diesel engine oils according to UHPD requirements. In some instances more stringent requirements to closed crankcase ventilation system engines compared to ACEA.
DQC IV	Oil for diesel engines with a closed crankcase system and high thermal stress according to UHPD specifications.
DQC III	Oil for high performance engines with a closed crankcase ventilation system and/or high thermal stress.
DQC II	General purpose engine oils for engines with an open crankcase ventilation system and standard drain intervals. Developed according to ACEA E7 and API CH-4 norms.
DQC I	Oils for standard applications if the equipment manufacturer does not require the latest oil specifications. Developed on the basis of ACEA E2 and API CF specifications.

11.2. Classification of transmission oils

API classification for manual transmission oils, manual transaxles, and axles

GL-5	Transmission oils containing highly effective Extreme Pressure additives. Capable to withstand harsh shock-load operating conditions, e.g. hypoid transmissions at high speed. Recommended for differentials on modern vehicles. Not recommended for manual transmissions with copper alloy synchromesh.
GL-4	Transmission oils containing highly effective Extreme Pressure additives. Recommended for manual gearboxes, including transmissions with copper alloy synchromesh. Not effective on hypoid transmissions under shock-loads.
GL-3	Transmission oils containing moderate Extreme Pressure additives. Recommended for light-duty manual transmissions and differentials.
GL-2	Mineral oils containing anti-wear additives. Application similar to API GL-1 but capable to withstand higher loads.
GL-1	Straight mineral oil without additives. Applicable for light-duty non-synchronized transmissions, spiral bevel and worm gears. Specification is obsolete.

ZF transmission oil specifications and corresponding applications

TE-ML 01	Manual ZF transmissions for trucks
TE-ML 02	Manual and automated ZF transmissions for trucks, buses, light commercial vehicles and specialized machinery
TE-ML 03	Transmissions for off-road equipment
TE-ML 04	Marine transmissions
TE-ML 05	Driven axles for off-road vehicles
TE-ML 06	Tractor transmissions and hydraulic lifts
TE-ML 07	Hydrostatic-mechanical and electric drive systems
TE-ML 08	Steering systems (non-power-assisted) for cars, commercial vehicles and off-road vehicles
TE-ML 09	Steering systems and oil pumps for cars, commercial vehicles and off-road vehicles
TE-ML 11	Manual transmissions, double-clutch transmissions and automatic transmissions for cars
TE-ML 12	Axles and wheel heads for buses and trucks
TE-ML 14	Powershift transmissions, type Ecomat, for buses, trucks, and specialized vehicles
TE-ML 15	Brake systems for specialized vehicles
TE-ML 16	Transmissions for rail vehicles
TE-ML 17	Transmissions and axles for lift-trucks
TE-ML 19	Transfer and offset transmissions for commercial vehicles
TE-ML 20	Powershift transmissions, type EcoLife, for buses, trucks, specialized machinery and stationary applications
TE-ML 21	Tractor axles, transmissions for harvesters and final dispensers

11.3. Classification of hydraulic oils

DIN 51524	ISO 6743/4	GOST 17479.3	Type of oil	Application
H	**HH**	**A**	Mineral oils containing no additives	Outdated hydraulic systems of earlier generations equipped with gear or piston pumps under low system pressure.
HL	**HL**	**B**	Mineral oils containing antioxidants and corrosion inhibitors	Outdated hydraulic systems of earlier generations equipped with any type of pump under low system pressure. Extended drain intervals compared to the previous category.
HLP	**HM**	**V**	HL + anti-wear additives	Modern hydraulic systems equipped with any type of pump and operating under low or high pressure. Category sets additional requirements on anti-wea properties. Applicable at ambient temperatures above 0°C (indoors or outdoors at moderate climate conditions).
HVLP	**HV**		HM + viscosity modifiers	Modern hydraulic systems equipped with any type of pump and operating under low or high system pressure. Category sets additional requirements on anti-wear properties. Applicable at a wide range of ambient temperatures including winter outdoor conditions below 0 °C.
HVLPD			HV + dispergents	Modern hydraulic systems equipped with any type of pump, operating under low or high pressure. Recommended for specific conditions when potential water, dirt or other contamination is highly probable and accumulated water can not be drained from the sump. Applicable at a wide range of ambient temperatures.

11.4. Other OEM specifications

OEM	Specification	Type of lubricant
CASE	MS 1209	UTTO, supersede MS 1207, MS 1206
	MS 1207	UTTO, specification is obsolete
	MS 1206	UTTO, specification is obsolete
	MS 1316	Transmission oil (SAE 85W-140, API GL-4, GL-5)
	MS 1230	Hydraulic oil (ISO VG 46, DIN 51524 Part 3 HVLP)
	MS 1216	UTTO (SAE 10W-30, Allison C-3)
	MS 1210	UTTO (Allison C-3)
NEW HOLLAND	NH-324 H	Engine oil (SAE 10W-30, API CH-4, ACEA E7)
	NH-330 H	Engine oil (SAE 15W-40, API CH-4, ACEA E7)
	NH-324 G	Engine oil (SAE 10W-30, API CF-4/SG)
	NH-330 G	Engine oil (SAE 15W-40, API CF-4/SG)
	NH-410 B	UTTO (SAE 10W-30)
	NH-420 A	UTTO (SAE 20W-30)
	NH-434 B	UTTO (SAE 20W-40, meets ZF TE-ML 06K, 21F)
	NH-520 A	Transmission oil (SAE 90, API GL-5)
	NH-520 B	Transmission oil (SAE 85W-90, API GL-5, automatic differential)
	NH-520 C	Transmission oil (SAE 80W-90, automatic differential)
	NH-524 A	Transmission oil (SAE 140, API GL-5, ZF-TE-ML 05A, 07A, 21A)
	NH-530 A	ATF (Dexron IID)
	NH-530 B	ATF (Dexron IIE, Allison C-4, Ford Mercon)
	NH-550 C	CAT TO-4
	NH-646H	Hydraulic oil (ISO VG 46, DIN 51524 Part 2 HLP)
NEW HOLLAND	NH-668H	Hydraulic oil (DIN 51524 Part 3 HVLP)
	NH-710A	Lithium grease (NLGI 2)
	NH-720A	Lithium grease containing molybdenum disulfide (NLGI 2)
	NH-800A	Brake fluid (DOT 4)
	NH-900C	Antifreeze (OAT technology)
CNH	MAT 3540	UTTO
	MAT 3505	UTTO, meets MS 1209
	MAT 3510	Meets MS 1317
	MAT 3509	Meets MS 1230
	MAT 3508	Meets MS 1216
	MAT 3506	Meets MS 1210
	MAT 3525	UTTO
	MAT 3526	Meets MAT 3525 + ehanced low temperature properties
	MAT 3521	Engine oil (API CJ-4, ACEA E7/E9)
	MAT 3522	Engine oil (API CJ-4, ACEA E9)
	MAT 3550	Lithium-Calcium grease (NLGI 2, 251H EP)
	MAT 3624	Meets NH-900C
JOHN DEERE	JDM 20C	UTTO
	JDM 20D	UTTO (improved low temperature properties)
Massey Ferguson	CMS M1145	UTTO, STOU. Superseeds CMS M1143 (UTTO) and CMS M1143 (STOU)

Typical product properties and technical data

G-Profi engine oils

Properties	Method	G-Profi GTS 5W-30	G-Profi GTS 10W-40	G-Profi GT 10W-40	G-Profi GT LA 10W-40	G-Profi MSK 5W-30	G-Profi MSK 10W-30	G-Profi MSK 15W-40	G-Profi FLI 15W-40	G-Profi MSI Plus 15W-40	G-Profi MSI 5W-40	G-Profi MSI 10W-30	G-Profi MSI 10W-40	G-Profi MSF 10W-40	G-Profi MSF 15W-40
Kin. viscosity at 40 °C, mm²/s	ASTM D445	71,4	99,3	99,3	99,3	74,6	82,8	112,7	115,5	122,4	92,7	78,2	103,8	100,6	118,5
Kin. viscosity at 100 °C, mm²/s	ASTM D445	12,3	14,8	14,6	14,8	12,4	12,4	14,8	14,9	16,1	15,0	11,8	15,3	14,6	14,9
Viscosity index	ASTM D2270	172	156	156	156	166	145	136	139	141	171	146	146	150	129
Flash Point Open Cup, °C	ASTM D92	233	238	238	249	233	240	242	239	230	229	230	232	227	239
Pour Point, °C	ASTM D97	-42	-39	-39	-39	-44	-41	-37	-40	-40	-44	-40	-40	-35	-33
TBN Alkalinity, mg KOH/g	ASTM D2896	16,5	16,5	15,5	13,6	11,3	9,0	9,0	14,6	12	12	12	12	—	—
TBN Alkalinity, mg KOH/g	GOST 11362	—	—	—	—	—	—	—	—	—	—	—	—	8,9	8,9
Dynamic Viscosity (CCS) at -20 °C, mPa*s	ASTM D5293	—	—	—	—	—	—	5800	5950	6 000	—	—	—	—	6900
Dynamic Viscosity (CCS) at -25 °C, mPa*s	ASTM D5293	—	6200	5900	6100	—	6500	—	—	—	—	5900	6000	6250	—
Dynamic Viscosity (CCS) at -30 °C, mPa*s	ASTM D5293	5100	—	—	—	5700	—	—	—	—	5700	—	—	—	—

Data stated above are typical averages for the listed products but may vary insignificantly depending on the product's batch.
Data valid through 2024.

Gazpromneft engine oils

Properties	Method	Gazpromneft Diesel Ultra 5W-30	Gazpromneft Diesel Ultra 10W-40	Gazpromneft Diesel Ultra 15W-40	Gazpromneft Diesel Ultra Plus 10W-40	Gazpromneft Diesel Ultra LA 10W-40	Gazpromneft Diesel Ultra CS 10W-40	Gazpromneft Diesel Premium 5W-40	Gazpromneft Diesel Premium 10W-30	Gazpromneft Diesel Premium 10W-40	Gazpromneft Diesel Premium 15W-40	Gazpromneft Diesel Extra 10W-40	Gazpromneft Diesel Extra 15W-40	Gazpromneft Diesel Extra 20W-50	Gazpromneft Turbo Universal 15W-40	Gazpromneft Turbo Universal 20W-50
Kin. viscosity at 100 °C, mm²/s	ASTM D445	12,3	14,9	15,2	15,0	14,3	15,3	14,5	11,5	14,8	14,8	15,1	14,9	18,5	14,9	18,9
Viscosity index	ASTM D2270	162	155	142	159	155	155	172	146	153	138	155	138	120	140	123
Flash Point Open Cup, °C	ASTM D92	232	243	235	240	243	240	226	227	230	234	230	230	250	239	240
Pour Point, °C	GOST 20287	-44	-41	-38	-41	-39	-41	-42	-36	-34	-34	-38	-35	-29	-33	-32
TBN Alkalinity, mg KOH/g	GOST 11362	15,4	15,4	15.4	15.4	12,0	10,2	11	11	11	11	10,2	10,2	10,2	9	9

Gazpromneft transmission oils

Properties	Method	Gazpromneft GL-4/GL-5 75W-90	Gazpromneft GL-4 75W-90	Gazpromneft GL-4 80W-85	Gazpromneft GL-4 80W-90	Gazpromneft GL-5 75W-90	Gazpromneft GL-5 80W-90	Gazpromneft ATF DX III	Gazpromneft ATF DX II
Kin. viscosity at 100 °C, mm²/s	ASTM D445	17,1	15,4	12,5	14,5	15,8	14,3	7,5	7,1
Flash Point Open Cup, °C	ASTM D92	225	232	220	240	217	230	219	220
Pour Point, °C	GOST 20287	-42	-42	-42	-35	-42	-32	-50	-48
Brookfield dynamic viscosity at -40/-26/-12 °C, mPa*s	ASTM D2983	107 000 (-40 °C)	128 000 (-40 °C)	105 000 (-26 °C)	72 000 (-26 °C)	113 000 (-40 °C)	90 000 (-26 °C)	16 500 (-40 °C)	35 890 (-40 °C)
4-ball scar tribologic properties at 20 °C, index, N	GOST 9490	660	575	596	560	662	656	—	—
4-ball scar tribologic properties at 20 °C, load, N	GOST 9490	4900	3920	4136	3479	4900	4900	—	—

Data stated above are typical averages for the listed products but may vary insignificantly depending on the product's batch.
Data valid through 2024.

Typical product properties and technical data

Universal G-Special oils

Properties	Method	G-Special TO-4 10W	G-Special TO-4 30	G-Special TO-4 50	G-Special UTTO 10W-30	G-Special UTTO Premium 10W-30	G-Special STOU 10W-30	G-Special STOU 10W-40
Kin.viscosity at 40 °C, mm²/s	ASTM D445	—	—	—	—	—	77,6	100,5
Kin.viscosity at 100 °C, mm²/s	ASTM D445	6,8	11,6	20,0	10,0	9,5	11,6	14,6
Viscosity index	ASTM D2270	—	—	—	—	—	143	150
Flash Point Open Cup, °C	ASTM D92	226	254	252	232	238	228	236
Pour Point, °C	ASTM D97	-36	-30	-18	-42	-45	-41	-40
Brookfield dynamic viscosity at -35/-55 °C, mPa*s	ASTM D2983	—	—	—	46 000 (-35 °C)	30 000 (-35 °C)	26 600 (-30 °C)	32 000 (-30 °C)

G-Box and G-Truck Transmission Oils

Properties	Method	G-Box GL-4/GL-5 75W-90	G-Box GL-4 75W-90	G-Box GL-5 75W-90	G-Box Expert GL-4 75W-90	G-Box Expert GL-5 75W-90	G-Box Expert GL-5 80W-90
Kin.viscosity at 100 °C, mm²/s	ASTM D445	15,8	15,5	14,9	15,5	15,0	14,5
Flash Point Open Cup, °C	ASTM D92	218	238	227	233	239	220
Pour Point, °C	ASTM D97	-51	-43	-42	-42	-41	-34
Brookfield dynamic viscosity at -40/-26/-12 °C, mPa*s	ASTM D2983	53 000 (-40 °C)	122 000 (-40 °C)	54 000 (-40 °C)	134 000 (-40 °C)	119 000 (-40 °C)	73 000 (-26 °C)
FZG A/8.3/90, load stage	DIN ISO 14635-1	>12	>12	>12	>12	>12	>12

Data stated above are typical averages for the listed products but may vary insignificantly depending on the product's batch.
Data valid through 2024.

Gazpromneft hydraulic oils

Properties	Method	G-Special Hydraulic Nord-32	G-Special Power HVLP-32	G-Special Power HVLP-46	G-Special Hydraulic HVLPD-46	G-Special Hydraulic HVLP-22	G-Special Hydraulic HVLP-32	G-Special Hydraulic HVLP-46	G-Special Hydraulic HVLP-68
Kinematic viscosity at 40 °C, mm²/s	ASTM D445	32	32	46	46	22	32	46	68
Kinematic viscosity at -30 °C/-20 °C/-10 °C, mm²/s	ASTM D445	890 (-30 °C)	1166 (-20 °C)	836 (-10 °C)	—	1020 (-20 °C)	1246 (-20 °C)	1000 (-10 °C)	—
Viscosity index	ASTM D2270	300	174	172	142	153	157	143	147
Flash Point Open Cup, °C	ASTM D92	146	200	221	218	196	196	210	224
Pour Point, °C	ASTM D97	-56	-52	-51	-44	-44	-44	-44	-40
Primary cleanliness code (*on demand)	GOST 17216	12	12	12	14	14	12	12	14

G-Truck GL-4/GL-5 80W-90	G-Truck GL-4 80W-90	G-Truck Z 75W-80	G-Truck GL-5 80W-90	G-Truck GL-5 85W-90	G-Truck LS 80W-90	G-Box ATF DX III	G-Box Expert ATF DX III	G-Box ATF DX II
14,7	14,4	9,7	14,3	17,0	14,2	7,2	7,3	7,7
230	243	240	238	227	229	205	208	218
-36	-35	-47	-33	-30	-34	-45	-52	-45
59 000 (-26 °C)	100 000 (-26 °C)	56 000 (-40 °C)	69 000 (-26 °C)	14 000 (-12 °C)	64 000 (-26 °C)	12 000 (-40 °C)	16 000 (-40 °C)	37 000 (-40 °C)
>12	>12	>12	>12	>12	>12	—	—	—

Data stated above are typical averages for the listed products but may vary insignificantly depending on the product's batch.
Data valid through 2024.

Gazpromneft hydraulic oils

Properties	Method	Gazpromneft Hydraulic Nord-32	Gazpromneft Hydraulic HVZF-22	Gazpromneft Hydraulic HVZF-32	Gazpromneft Hydraulic HVZF-46	Gazpromneft Hydraulic HVZF-68	Gazpromneft Hydraulic HVLP-10	Gazpromneft Hydraulic HVLP-15
Kin.viscosity at 40 °C, mm²/s	ASTM D445	32	22	32	46	68	10	15
Kinematic viscosity at subzero temperatures °C, mm²/s	ASTM D445	2450 (-40 °C)	725 (-20 °C)	1198 (-20 °C)	869 (-10 °C)	—	1100 (-40 °C)	580 (-30 °C)
Viscosity index	ASTM D2270	302	153	160	153	144	158	161
Flash Point Open Cup, °C	ASTM D92	125	200	203	220	230	140	160
Pour Point, °C	GOST 20287	-56	-50	-45	-44	-39	-60	-52
Cleanliness code not above	GOST 17216	14	14	14	14	14	14	14

Gazpromneft Hydraulic HVLP-22	Gazpromneft Hydraulic HVLP-32	Gazpromneft Hydraulic HVLP-46	Gazpromneft Hydraulic HVLP-68	Gazpromneft Hydraulic All Seasons	Gazpromneft Hydraulic HLP-32	Gazpromneft Hydraulic HLP-37	Gazpromneft Hydraulic HLP-46	Gazpromneft Hydraulic HLP-68	Gazpromneft Hydraulic HLP-100
22	32	46	68	22	32	37	46	68	100
700 (-20 °C)	1500 (-20 °C)	1100 (-10 °C)	—	1020 (-30 °C)	—	—	—	—	—
155	153	145	145	230	101	99	98	96	94
200	218	218	222	160	227	220	234	238	248
-50	-44	-43	-40	-53	-42	-34	-37	-36	-33
14	14	14	14	14	12	12	12	12	12

Gazpromneft compressor oils

Properties	Method	Gazpromneft Compressor F Synth-46	Gazpromneft Compressor F Synth-68	Gazpromneft Compressor S Synth-46	Gazpromneft Compressor S Synth-68	Gazpromneft Compressor S Synth-100	Gazpromneft Compressor S Synth-150	Gazpromneft Compressor Oil-46
Kin.viscosity at 40 °C, mm²/s	ASTM D445	46	68	46	68	100	150	46
Viscosity index	ASTM D2270	136	140	105	106	105	101	98
Flash Point Open Cup, °C	ASTM D92	260	253	244	266	265	262	250
Pour Point, °C	GOST 20287	-43	-43	-34	-36	-37	-32	-31

Gazpromneft Compressor Oil-68	Gazpromneft Compressor Oil-100	Gazpromneft Compressor Oil-150	Gazpromneft Compressor Oil-220	Gazpromneft Compressor Oil-320
68	100	150	220	320
97	94	94	94	94
250	251	267	268	264
-28	-28	-25	-21	-17

Data stated above are typical averages for the listed products but may vary insignificantly depending on the product's batch.
Data valid through 2024.

Data stated above are typical averages for the listed products but may vary insignificantly depending on the product's batch.
Data valid through 2024.

Gazpromneft reductor oils

Properties	Method	Gazpromneft Reductor PAO Synth-150	Gazpromneft Reductor PAO Synth-220	Gazpromneft Reductor PAO Synth-320	Gazpromneft Reductor PAO Synth-460	Gazpromneft Reductor PAO Synth-680	Gazpromneft Reductor F Synth-150	Gazpromneft Reductor F Synth-220	Gazpromneft Reductor F Synth-320	Gazpromneft Reductor F Synth-460	Gazpromneft Reductor CLP-68	Gazpromneft Reductor CLP-100	Gazpromneft Reductor CLP-150	Gazpromneft Reductor CLP-220	Gazpromneft Reductor CLP-320	Gazpromneft Reductor CLP-460	Gazpromneft Reductor CLP-680	Gazpromneft Reductor WS-100	Gazpromneft Reductor WS-150	Gazpromneft Reductor WS-220
Kin.viscosity at 40 °C, mm²/s	ASTM D445	150	220	320	460	680	150	220	320	460	68	100	150	220	320	460	680	100	150	220
Viscosity index	ASTM D2270	154	154	161	168	174	159	167	161	165	97	95	92	92	92	90	86	101	98	97
Flash Point Open Cup, °C	ASTM D92	253	267	265	261	255	232	235	238	240	238	240	242	246	249	257	260	230	244	247
Pour Point, °C	GOST 20287	-49	-40	-38	-37	-29	-38	-37	-35	-34	-34	-30	-19	-21	-17	-15	-15	-33	-30	-25
FZG A/8.3/90, load stage	DIN ISO 14635-1	>14	>14	>14	>14	>14	>14	>14	>14	>14	—	—	—	—	—	—	—	—	—	—
Loadwear Index, N	GOST 9490	523	523	523	523	523	—	—	—	—	454	464	470	480	509	530	550	491	494	493
Scar diameter, mm	GOST 9490	0,21	0,21	0,21	0,21	0,21	—	—	—	—	0,25	0,26	0,27	0,27	0,28	0,28	0,29	0,30	0,35	0,29

Saw chain and guide bar oils

Properties	Method	G-Garden Chain&Bar	Gazpromneft Chain Oil
Kin.viscosity at 100 °C, mm²/s	ASTM D445	11,2	11,3
Flash Point Open Cup, °C	ASTM D92	233	244
Pour Point, °C	GOST 20287	-30	-31

Data stated above are typical averages for the listed products but may vary insignificantly depending on the product's batch.
Data valid through 2024.

Data stated above are typical averages for the listed products but may vary insignificantly depending on the product's batch.
Data valid through 2024.

Arguments to choose
Gazpromneft – Lubricants Ltd.

- OEM approvals, recommendations on application, strong references from main mining industry players.
- Optimal drain intervals.
- Complex range of products and services.
- Technical expertise.
- Optimized logistics, Extensive supply chain.

GAZPROM NEFT / GAZPROMNEFT LUBRICANTS

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Abbreviations

SAE xxW-xx

Classification of viscosity grades.

API Sx/Cx; ACEA Ex; JASO DH-x

Classification of lubricants by applications, properties and quality.

MB xxx, Cummins CES 200xx, Caterpillar ECF-x, Volvo VDS-x, Deutz DQC xx and other

Specifications developed by OEMs. Usually sets higher required quality limits than API, ACEA, JASO.

EGR

Exhaust Gas Recirculation. Can be installed on diesel and gas engines. Intended to reduce toxicity of exhaust gases.

SCR

Selective Catalytic Reactor. Can be installed on diesel engines. Intended to reduce toxicity of exhaust gases.

DPF

Diesel Particle Filter. Can be installed on diesel engines. Intended to reduce toxicity of exhaust gases.

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Notes

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