



COOLANTS FOR COMMERCIAL AND SPECIAL EQUIPMENT



GAZPROMNEFT
LUBRICANTS

gazpromneft-sm.ru

About the company

Gazpromneft-Lubricants was founded in 2007 and is now one of the leaders in the Russian market, specializing in the production and sale of oils, greases, and technical fluids.

The consumers of Gazpromneft-Lubricants products are large industrial enterprises that are leaders in their respective industries.

G-ENERGY



G-Energy Antifreeze

The range of ethylene glycol-based coolants, thanks to the use of additive packages based on various technologies (OAT, Hybrid, Lobrid), allows servicing a wide range of equipment, including the most modern.

GAZPROMNEFT



Gazpromneft Antifreeze

A range of ethylene glycol-based coolants and various technologies (OAT, hybrid, traditional) allows servicing equipment from the most modern to Soviet-made equipment.

Gazpromneft-Lubricants Ltd. antifreezes are successfully used in:



In commercial transport and special equipment

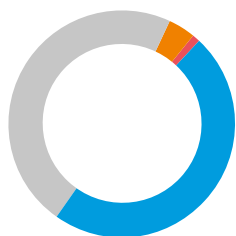


In stationary engines



In passenger cars

Why the color of antifreeze is not the most important thing



- Dye <0.003%
- Additives 2–4%
- Water 45–60%
- Ethylene glycol 36–53%

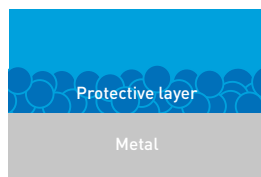


Antifreeze is colored in different colors in order to visually determine its level in the expansion tank and detect leaks.

! The color does not affect the performance properties; the composition of the antifreeze (namely, the type of additives) is responsible for these.

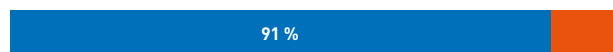
The properties of antifreeze are determined by additive technology

IAT



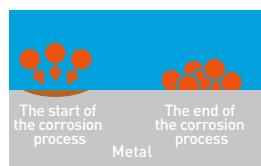
Features of traditional technology (IAT)

Coating the entire cooling system with a protective layer of significant thickness (several microns), protecting the sleeves from corrosion.



- Inorganic corrosion inhibitors
- Organic corrosion inhibitors

OAT



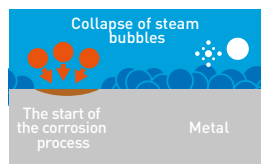
Features of carboxylate technology (OAT)

Formation of a protective layer only in areas of corrosion, slow consumption of additives, extended service life



- Inorganic corrosion inhibitors
- Organic corrosion inhibitors

Lobrid/Hybrid



Features of lobrid and hybrid technologies

Inorganic additives protect metal from cavitation by forming a protective layer, while organic additives are activated at points of corrosion, ensuring reasonable consumption of corrosion inhibitors.



- Inorganic corrosion inhibitors
- Organic corrosion inhibitors

How to choose a coolant

Method 1

User manual

HAt the manufacturing plant, the cooling system is filled with antifreeze (purple) according to **ASTM D 6210** specifications.



Selection is carried out in accordance with the equipment operating instructions.

Method 2

If this information is not available, you can contact Gazpromneft-Lubricants technical support, specifying the make, model, year of manufacture, engine size, and power.

Our tech support email address:
techservice@gazprom-neft.ru

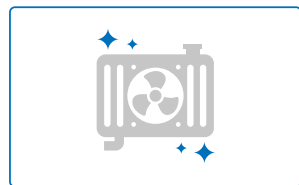
Or request form*:
www.g-energy.org/ru/feedback



* Message subject: "Oil selection / Contact a technical specialist."

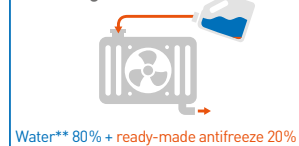
How to properly replace/top up coolant

Clean cooling system



Step 1

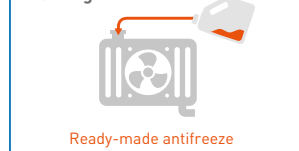
Flushing*



Water** 80% + ready-made antifreeze 20%

Step 2

Pouring



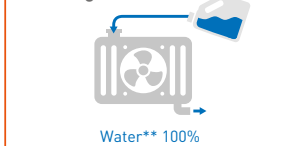
Ready-made antifreeze

Deposits in the cooling system



Step 1

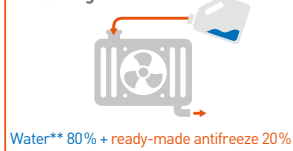
Flushing*



Water** 100%

Step 2

Flushing*



Water** 80% + ready-made antifreeze 20%

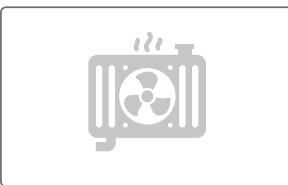
Step 3

Pouring



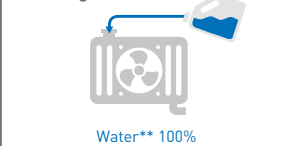
Ready-made antifreeze

Low coolant level in a sealed cooling system



Step 1

Refilling



Water** 100%

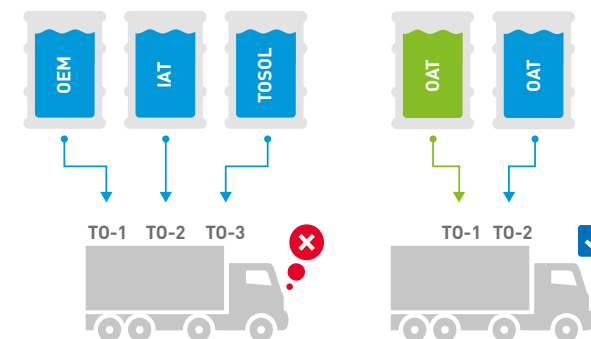
* Flushing time — at least 10 minutes after the engine reaches operating temperature.

** Distilled water is preferred.

The same color does not mean the same quality

Color does not affect performance properties. Only the composition (including the type of additives) affects performance properties.

You can pour antifreeze of a different color into the cooling system if it has the same composition.



Do not refer to G11, G12, G13



The VW TL 774-C/D/F/G/J (G11, G12, 12+, 12++, G13) classification is not universal and is only suitable for Volkswagen Group vehicles. Other automakers have their own requirements for antifreeze, which are based on compatibility with engine construction materials and operating conditions. For example, Daimler/Mercedes-Benz Specification 325.3, MAN 324 Typ SNF, Caterpillar ELC (EC-1), MTU MTL 5048, etc.



Pay attention to the manufacturer's requirements for your specific equipment!

The myth of «Tosol or antifreeze»

«Tosol is for national equipment, and antifreeze is for imported equipment»

«Tosol» is the brand name of a specific coolant, while antifreeze is the general name for a whole class of products for engine cooling systems. Therefore, these names in no way reflect the applicability of the product in a particular type of equipment, and when choosing a coolant, you should first look at the specifications of the equipment manufacturer.

Basic classification of coolants

ASTM D 3306

Engine load: ● ● ●

The coolant production technology, in accordance with **ASTM D 3306**, can be of any type (OAT, IAT, Hybrid, Lobrid).

ASTM D 4985

Engine load: ● ● ●

The coolant production technology, which complies with **ASTM D 4985**, can be of any type. Complements the requirements of ASTM D 3306. Increased corrosion protection.

ASTM D 6210

Engine load: ● ● ●

+ additional protection of "wet" cylinder liners against cavitation

The coolant production technology, in accordance with **ASTM D 6210**, can be of any type. Complements the requirements of ASTM D 4985. Increased cavitation protection is mandatory, which is especially important for a number of engines with wet liners.

How the basic classification works



OEM specification/approval = ASTM D XXXX + additional OEM requirements.

G-Energy Antifreeze Si-OAT



G-Energy Antifreeze Si-OAT 40



Coolant concentrate



Ready-to-use coolant



Color: red-purple



Extended replacement interval



Lobrid additive technology



Comprehensive corrosion protection

ASTM D 3306; ASTM D 4985

Automotive manufacturer specifications: BMW LC-18 (>01/2019); Cummins 14603; MAN 324 Si-OAT; MB 325.5; MTU MTL 5048; VW TL 774 G (G12++)

Standards: ASTM D 3306; ASTM D 4985; GOST 33591

G-Energy Antifreeze PSi-OAT



G-Energy Antifreeze PSi-OAT 40



Coolant concentrate



Ready-to-use coolant



Color: red



Extended replacement interval



Lobrid additive technology



Comprehensive corrosion protection

ASTM D 3306; ASTM D 4985

Automotive manufacturer specifications: Volkswagen (VW) TL 774-L (G12 EVO); Deutz DQC CC-14; Bentley TL-774-L; Audi TL 774-L; Bugatti TL 774-L; Deutz DQC CC-14; Lamborghini TL 774-L; Porsche TL 774-L; Seat TL 774-L; Skoda TL 774-L; BMW LC-18 > 01/2019

Standards: ASTM D 3306; ASTM D 4985

G-Energy Antifreeze SNF



G-Energy Antifreeze SNF 40



Coolant concentrate



Ready-to-use coolant



Color: red



Extended replacement interval



Carboxylate additive technology



Improved heat exchange

ASTM D 3306; ASTM D 4985; ASTM D 6210

Key specifications:

MAN 324 SNF; MB 325.3; MTU MTL 5048; Deutz DQC CB-14; Caterpillar; MWM; DAF MAT 74002

Automotive manufacturer 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; Wärtsilä 32-9011; John Deere JDM H5; Komatsu KES 07.892; Liebherr MD1-36-130; Mazda; Isuzu; Volvo VCS 418-0001

Standards: ASTM D 3306; ASTM D 4985; ASTM D 6210; ASTM D 7583; GB 29743; BS 6580:2010; KSM 2142; JASO M325; JIS K2234; AS 2108-2004; SAE J1034; AFNOR SNF R15-601; ÖNORM V 5123; CUNA NC 956-16; SANS 1251:2005; SH 0521-1999

G-Energy Antifreeze NF**G-Energy Antifreeze NF 40**

Coolant concentrate



Ready-to-use coolant



Color — blue-green



Extended replacement interval



Hybrid additive technology



Comprehensive corrosion protection

ASTM D 3306; ASTM D 4985**Key specifications:**

MAN 324 NF; MB 325.0; Deutz DQC CA-14

Automotive manufacturer specifications: Daimler/Mercedes-Benz Specification 325.0; MAN 324 NF; DEUTZ DQC CA-14; Jenbacher TI. 1000-0201; VW (Audi, Seat, Skoda) TL 774-C (G-11); Jenbacher TA-Nr. 1000-0201; Liebherr Machines Bulle TLV 035; TLV 23009 A; Porsche 924, 928, 944, 968; Saab 6901599; General Motors B 040 0240; BMW N 600 69.0; Ford; General Motors; Iveco

Standards: ASTM D 3306; ASTM D 4985; AS 2108-2004; ÖNORM V 5123; CUNA NC 956-16; SANS 1251:2005; BS 6580-2010; GOST 33591-2015

G-Energy Antifreeze HD**G-Energy Antifreeze HD 40**

Coolant concentrate



Ready-to-use coolant



Color — purple



Extended replacement interval



Lobrid additive technology



Increased cavitation protection

ASTM D 3306; ASTM D 4985; ASTM D 6210**Key specifications:**

Caterpillar EC-1; Cummins CES 90T8-4; Detroit Diesel 7SE298; Freightliner 48-22880

Automotive manufacturer specifications: Caterpillar ELC (EC-1); Cummins CES 90T8-4; Detroit Diesel 7SE298; Freightliner 48-22880; General Motors 1825, 1899M, 6277M

Standards: ASTM D 3306; ASTM D 4985; ASTM D 6210; SAE J1034, 1038; TMC RP 329; GOST 33591-2015

G-Energy Antifreeze**G-Energy Antifreeze 40****G-Energy Antifreeze 65**

Coolant concentrate



Ready-to-use coolant



Color: green



Carboxylate additive technology



Improved heat exchange

ASTM D 3306**Key specifications:**

KAMAZ PJSC; GAZ Automobile Plant LLC; Avtodizel (YAMZ) PJSC

Automotive manufacturer specifications: GAZ Automobile Plant LLC; AVTOVAZ PJSC; Avtodizel (YAMZ) PJSC; KAMAZ PJSC; UAZ**Standards:** ASTM D 3306; BS 6580:2010; GOST 33591; ASTM D 4340**G-Energy Antifreeze RED****G-Energy Antifreeze RED 40**

Coolant concentrate



Ready-to-use coolant



Color: red



Carboxylate additive technology



Improved heat exchange

ASTM D 3306**Key specifications:**

KAMAZ PJSC; GAZ Automobile Plant LLC; Avtodizel (YAMZ) PJSC

Automotive manufacturer specifications: AVTOVAZ PJSC; GAZ Automobile Plant LLC; KAMAZ PJSC; Avtodizel (YAMZ) PJSC**Standards:** ASTM D 3306; BS 6580-1992; GOST 33591-2015

G-Energy Antifreeze P-OAT Green**G-Energy Antifreeze P-OAT 40 Green**

Coolant concentrate



Ready-to-use coolant



Color: green



Lobrid additive technology



Improved heat exchange

ASTM D 3306; ASTM D 4985; ASTM D 6210; BS 6580**Key specifications:**

Japanese Standard (JIS) K2234 Class II; Korean Standard (KSM) 2142

Automotive manufacturer specifications: Nissan; Mitsubishi; HONDA; MAZDA; HYUNDAI; KIA**Standards:** Japanese Standard (JIS) K2234 Class II; Korean Standard (KSM) 2142; ASTM D 3306; ASTM D 4985; ASTM D 6210; BS 6580**GAZPROMNEFT ANTIFREEZE SF12+****GAZPROMNEFT ANTIFREEZE SF12+ 40**

Coolant concentrate



Ready-to-use coolant



Color: red



Extended replacement interval



Carboxylate additive technology



Improved heat exchange

ASTM D 3306; ASTM D 4985**Key specifications:**

MAN 324 SNF; MB 325.3

Automotive manufacturer specifications: VW/Audi/Seat/Skoda TL 774-D/F (G-12/G-12+); MAN 324 SNF; Bentley TL 774-D/F; DAF MAT 74002; DEUTZ DQC CB-14; Lamborghini TL 774-D/F; MINI Cooper D (built as from 2007); Porsche (built as from 1996); FORD WSS-M97B44-D; Mazda; Isuzu; Great Wall; Volvo VCS 418-0001; AVTOVAZ; KAMAZ; YAMZ**Standards:** ASTM D3306; ASTM D4985; BS 6580:2010; KSM 2142; JASO M325; JIS K2234; SAE J1034; AFNOR SNF R15-601; ÖNORM V 5123; CUNA NC 956-16; SANS 1251:2005; SH 0521-1999

GAZPROMNEFT ANTIFREEZE



GAZPROMNEFT ANTIFREEZE 40



GAZPROMNEFT ANTIFREEZE Arctic*



Coolant concentrate



Ready-to-use coolant



Color: red



Traditional technology (Low silicate)



Increased cavitation protection

* Gazpromneft Antifreeze Arctic has a freeze protection temperature of -55 °C.

ASTM D 3306; ASTM D 4985; ASTM D 6210

Key specifications:

PJSC «KAMAZ»; Caterpillar; New Holland 9-86; Cummins CES 14603; John Deere 8650-5; Detroit Diesel 7SE298; MM3; Avtodizel (YAMZ) PJSC

Automotive manufacturer 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; GAZ Automobile Plant LLC; AVTOVAZ PJSC; Minsk Motor Plant; Avtodizel (YAMZ) PJSC; KAMAZ PJSC

Standards: ASTM D 3306; ASTM D 4985; ASTM D 6210; TMC RP329; SAE 1941; GB 29743; BS 6580-1992; GOST 33591-2015

GAZPROMNEFT ANTIFREEZE BS



GAZPROMNEFT ANTIFREEZE BS 40



Coolant concentrate



Ready-to-use coolant



Color: green



Traditional technology (Low silicate)



Protection against deposits and scale

ASTM D 3306; ASTM D 4985

Standards: ASTM D 3306; ASTM D 4985; GOST 33591-2015

GAZPROMNEFT TOSOL	
GAZPROMNEFT TOSOL 40	
GAZPROMNEFT TOSOL 65	



-  Coolant concentrate
-  Ready-to-use coolant
-  Color: blue
-  Traditional technology

Standards: BS 6580-1992; GOST 28084-89; GOST 33591-2015

For notes

For notes

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