

## GAZPROMNEFT ANTIFREEZE HYBRID

GAZPROMNEFT ANTIFREEZE Hybrid is a coolant concentrate based on salts of organic acids and silicates. Does not contain nitrites, amines and phosphates. Designed for cooling systems of internal combustion engines. When diluted, it provides highly efficient engine cooling at ambient temperatures in accordance with the recommendations for dilution with water. Before use, dilute the concentrate with distilled water. Do not use without dilution.

### Application

- Cars, trucks, buses, stationary engines and special equipment.
- Concentrate is not used as a working coolant.
- Before use, the concentrate should be diluted with water from 40% to 60%.
- Concentrate is not used as a working coolant.
- The optimal coolant concentration is 50%.
- Use distilled or demineralized (filtered) water for dilution.

### Advantages

- Contains a hybrid package of corrosion inhibitors based on salts of organic acids and silicates.
- Does not contain nitrites, amines, phosphates and borates (NF – Nitrite Free).
- Reduced repairs – thermostat, radiator and water pump
- Protects the engine from corrosion, overheating and defrosting.
- Provides an excellent degree of corrosion protection for the cylinder block, cylinder head, radiator, pump, heat exchangers.
- During operation it does not form deposits or blockages.

### Typical physical and chemical properties

Parameters	Method	GAZPROMNEFT ANTIFREEZE Hybrid
Appearance	Visually	Transparent homogeneous blue-green liquid without visible foreign inclusions
Density at 20 °C, g/cm <sup>3</sup>	ASTM D1122	1,120
Refractive index at 20 °C	ASTM D1120	108
Boiling point, °C	ASTM D1121	14,5
Alkalinity reserve (50% dilution), ml	ASTM D1287	7,3
pH (50% dilution)	ASTM D 1881	max 50 ml / 3 s
Foamability, 33% vol.	ASTM D1177	-37

### Specifications and standards

Afnor R15-601; AS 2108-2004; ASTM D3306; ASTM D4985; BMW N 600 69.0; BMW LC-87; BS 6580-2010; CUNA NC 956-16; Deutz DQC CA-14; Ford; GM B 040 0240; Iveco T18-1804 Classe T3 E4; MAN 324 NF; MB 325.0; MTU MTL 5048; ONORM V 5123; VW TL 774-C (G-11); China GB 29743; Seat; Skoda; Audi; Mitsubishi, Porsche 924, 928, 944, 968; Saab 6901599; SANS 1251:2005

**GAZPROMNEFT ANTIFREEZE Hybrid** – coolant concentrate. When pouring it into the car's cooling system, it must be diluted with demineralized (distilled or filtered) water in the following ratio\*:

Coolant ratio		Frost protection temperature
Concentrate	Water	
2 parts	1 part	-65°C
1 part	1 part	-40°C

\* Dilution with water above 70% is not recommended, since due to the low concentration of additives, effective corrosion protection is not achieved.

**The company's management system is certified in accordance with the international standards**

ISO 9001



ISO 14001



ISO 45001

