

## GAZPROMNEFT ANTIFREEZE SF12+ 40

GAZPROMNEFT ANTIFREEZE SF12+ 40 is a ready-to-use carboxylate-type coolant based on ethylene glycol for modern internal combustion engines, including automobile and stationary engines. Provides an extended replacement interval compared to traditional antifreeze.

### Application

- Cars and trucks.
- Stationary diesel engines.
- Special equipment, buses.

### Advantages

- Meets the requirements of MAN 324 SNF and VW TL 774-F (G12+) specifications.
- The additive package is manufactured using silicate-free technology.
- Can be used in both cast iron and aluminum engines.
- Does not form deposits and scale.
- Reliably and long-term protects against corrosion.
- Prevents cavitation.
- Does not tend to form foam.

### Typical physical and chemical properties

Parameters	Method	GAZPROMNEFT ANTIFREEZE SF12+ 40
Appearance	Visually	Transparent homogeneous red liquid without visible foreign inclusions
Density at 20 °C, g/cm <sup>3</sup>	ASTM D1122	1,068
Refractive index at 20 °C	GOST 18995.2	1,386
Boiling point, °C	ASTM D1120	108
Alkalinity reserve, ml	ASTM D1121	6,5
pH	ASTM D1287	8,5
Foamability	ASTM D1881	max 100 ml / 3 s
Chilling point, °C	ASTM D1177	-37

### Specifications and standards

- VW TL 774-F (G12+), MB 325.3, MAN 324 Typ SNF, FORD WSS-M97B44-D, John Deere, JIS K2234, Volvo Penta, Great Wall, Fiat, Case New Holland, Claas, NFR 15-601, Caterpillar, KSM 2142, JASO M325
- ASTM D3306, ASTM D4985, SAE J1034, BS 6580-2010, Afnor NF R15-601, GOST 33591-2015

### Approvals

PJSC Avtodizel (YaMZ)

ASTM D1384. Corrosive effect on metals (corrosion in glass), 336 h, 88 °C

	Brass	Copper	Solder	Steel	Cast iron	Aluminum
	Average Plate Weight Change, mg*					
ASTM D3306 standard (max)	10	10	30	10	10	30
GAZPROMNEFT ANTIFREEZE SF12+ 40	1,3	1,8	2,1	0,2	1,4	4,6

\* Negative values mean weight gain

ASTM D4340. Hot surface corrosion, 25% vol., 168 h, 135 °C

	Weight loss, mg/cm/week
ASTM D3306 standard (max)	1,0
GAZPROMNEFT ANTIFREEZE SF12+ 40	<0,2

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

**ISO 9001**



**ISO 14001**



**ISO 45001**

