



Gazpromneft Tosol ***Coolant concentrate***

PRODUCT DESCRIPTION

Gazpromneft Tosol coolant concentrate is used to prepare the working coolants with specified temperature of the freeze point by diluting it with water. **The concentrate is not used as working coolant.** Set of additives is formed on the basis of traditional corrosion inhibitors and provides reliable and long-term rust protection, foaming, rubber swelling.

Gazpromneft Tosol does not contain potentially hazardous components such as nitrites and amines, respectively, it is more environmentally-friendly. It is produced according to Company Standard 84035624-164-2015.

ADVANTAGES

Gazpromneft Tosol provides the following advantages to organizations operating cars, private car owners, designers of engines:

Reliability — stable corrosion inhibitor, low freeze point

APPLICATION

Gazpromneft Tosol provides long-term engine protection against frost and corrosion, it is safe for use year-round in all types of liquid-cooled engines.

The recommended service life is up to 80,000 km or up to two years, whichever is earlier. **Gazpromneft Tosol** is recommended for use in vehicles, where replacement of the coolant is performed relatively often, for whatever reasons.

COMPATIBILITY AND MISCIBILITY

Gazpromneft Tosol is compatible with majority of other ethylene glycol-based coolants. However, for optimum corrosion control and sludge formation, mixing of different products is not recommended. Also, the use of soft water for dilution is preferable.

PHYSICAL AND CHEMICAL PROPERTIES



Issued by Gazpromneft-Lubricants Ltd., Russia, 117647, Moscow 125A, Profsoyusnaya str., according to Company Standard 84035624-164-2015. For detailed information on the product and its use please contact our Company's technical staff. E-mail: Techservice@gazprom-neft.ru

The above data are typical for the products manufactured within the typical manufacturing tolerances and cannot be referred to as a Specification. For information only, can be changed without prior notice. 10/04/2015.



	Parameter description	Standard	Test Method
		<i>GAZPROMNEFT Tosol</i>	
1.	Appearance	Uniform transparent liquid of blue colour	According to GOST 28084-89 p.4.1.
2.	Specific gravity (density) at 20°C	1.100–1.150	ASTM D1122 or GOST 18995.1, sect. 1.
3.	Freeze point temperature, °C (50 vol.%), max.	Minus 35	ASTM D1177 or GOST 28084-89, p. 4.3.
4.	Frost protection level (50 vol.%)	Minus 40	
5.	Boiling temperature, concentrate, °C 50 vol.% °C, min.	168 108	ASTM D1120 or TU 6-57-95-96 p. 4.5
6.	Corrosive attack on the metals, weight loss, mg/plate, max. Copper Solder Brass Steel Cast iron Aluminum	10 15 10 10 10 15	ASTM 1384 or GOST 28084-89 p. 4.5
7.	Foamability at 88°C, ml, max. Foam stability, s, max.	50 5	ASTM D1881 or GOST 28084-89 p. 4.6
8.	Rubber swelling, %, max. At 100°C, 70 hours, standard samples of rubber 57-5006 TU 38-105250-77, class TRP-100-60	5	GOST 9.030-74 sect. 1 amended by GOST 28084-89 p. 4.7
9.	Hydrogen index (pH) at 20°C	8.0–10.5	ASTM D1287 or GOST 28084-89 p. 4.8
10.	Refraction index at 20°C	1.425–1.435	GOST 18995.2-73
11.	Alkalinity at 20°C, ml	10 min.	GOST 28084-89 p. 4.9



CORROSION

Table 1: Test for "corrosion in glass"

	Weight loss in mg/plate ¹					
	Brass	Copper	Solder	Steel	Cast iron	Aluminum
ASTM D3306 (max.)	10	10	30	10	10	30
Afnor R15-601 (max.)	± 5	± 5	± 5	± 2.5	± 4	From -10 to +20
BS 6580: 1992 (max.)	10	10	15	10	10	15
Gazpromneft Tosol	-0.6	-0.6	0.2	1.4	0.9	0.0

¹ Weight loss after chemical cleaning in accordance with ASTM procedure. Weight gain is indicated by "-".

QUALITY CONTROL

The aforementioned values are the average values at the time of preparation of this technical information. They are not the product specified parameters. Specified parameters are given in the certificate of quality of the product.

COMMODITY VARIETIES

Commodity option of Gazpromneft Tosol is released in 220 kg steel barrels.

STORAGE CONDITIONS

The product can be stored at any ambient temperatures. It is desirable to minimize the periods of storage at temperatures above 35°C. Shelf life is at least 3 years in the manufacturer package with maintained quality and performance properties, provided that package is not opened. While diluting the concentrate with water do not use pipes and containers made of galvanized steel.



TOXICITY AND SAFETY

Data for toxicity and safety is given in MSDS. Transportation is not regulated. Marking is similar with marking for any MEG-based product: Xn: R 22 (Harmful if swallowed) and S 2 (Keep out of reach of children). This product can not be used for frost protection in drinking water systems.



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