

Gazpromneft Hydraulic HFC-46



Hydraulic systems



Fire safety



Optimal anti-wear properties



Oxidation stability



Excellent viscosity-temperature properties

Gazpromneft Hydraulic HFC-46 is a fire-resistant water-glycol hydraulic fluid designed for use in hydraulic systems operating in areas with a high risk of fire.

Gazpromneft Hydraulic HFC-46 is flame retardant and guarantees maximum safety due to its high water content. It replaces mineral-based hydraulic oils in uses with a high risk of fire. It has excellent viscosity and temperature properties, which allow high pump performance in a wide temperature range. The fluid maintains lubricating properties over the entire temperature range of application, with protection against wear. It also resists oxidation and protects hydraulic components against corrosion.

Advantages and Potential benefits

- High fire resistance → operability even near an open flame and in contact with hot surfaces due to the inclusion of water → safety and health of workers in production.
- Excellent viscosity and temperature properties → the liquid maintains a stable oil film over a wide range of temperature changes → high pump performance.
- Optimal anti-wear properties → effective equipment protection throughout the entire drain interval → long equipment life guarantee.
- Oxidation stability → maintenance of performance properties throughout the entire oil application interval → reduced maintenance costs due to the long service life of the oil.
- Corrosion protection → elements of the hydraulic system are protected from corrosive effects → reduction in maintenance service costs.

Application

- Steel production, rolling mills for forging production, coke production, mining.
- Injection molding plants, molding machine hydraulic systems, forging hammers and presses.
- Mine support hydraulic systems, road headers, auxiliary equipment (loading machines, drilling rigs, mine hoists).
- Medium-loaded hydraulic systems (150-250 atm.), operated near an open flame and with a significant risk of fire.
- Operating temperature range is in accordance with ISO 7745.
- The temperature in the oil volume should not exceed 60 °C to prevent water evaporation. At higher temperatures, it is recommended to use HFDU fluids.
- It is recommended to control losses from water evaporation and top up with distilled water.
- It does not miscible with standard mineral based hydraulic oils (HLP, HVLP).

Specification	Gazpromneft Hydraulic HFC-46
ISO 6743/4 HFC	✓
DIN 51502 HFC	✓

Typical properties

Parameters	Method	Gazpromneft Hydraulic HFC-46
Kinematic viscosity at 40°C, mm²/s	GOST 33	45.7
Kinematic viscosity at 100°C, mm²/s	GOST 33	10.55
Kinematic viscosity at minus 20°C, mm²/s	GOST 33	944
Viscosity index	GOST 25371	230
pH at 25°C	GOST 22567.5	9.5
Pour point, °C	GOST 20287 (method B)	minus 51
Tribological properties at 20±5 °C on four-ball machine: welding load (P _w), N wear diameter (D _w), mm	GOST 9490	1470 0.65
Density at 20 °C, kg/m³	ASTM D 4052	1078

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

ISO 9001



ISO 14001



ISO 45001

