

## Gazpromneft Hydraulic HVLP

Hydraulic Oils



Hydraulic systems



Wide application temperature range



Antiwear properties



Excellent filterability



Mineral

**Gazpromneft Hydraulic HVLP** series are premium high performance anti-wear hydraulic oils designed to satisfy a wide range of hydraulic equipment requirements. Formulated with high-quality mineral base oils and selected additives they provide very good anti-wear properties, rust and corrosion protection, oxidation resistance and antifoam properties. The high viscosity indexes provide excellent low and high temperature properties for equipment that is subjected to a wide range of start-up and operating temperatures. They are designed for systems operating under moderate conditions where high levels of anti-wear protection are needed.

### Applications

- Wide variety of industrial and mobile applications
- Hydraulic systems requiring anti-wear oils
- Systems containing gears and bearings requiring mild anti-wear properties
- Systems where low start-up and high operating temperatures are typical, including outdoor applications
- Hydraulic pumps by wide range of manufacturers, including Denison, Cincinnati Machine, Eaton Vickers, Bosch Rexroth.

Features	Advantages and Potential Benefits
High viscosity index and good shear stability	Maintain excellent viscosity characteristics for long periods of time for long equipment life
Low pour points	Good fluidity conditions at low temperatures provide good pumpability at low temperatures
Very good foam control	High performance and smooth hydraulic operations
Exceptional corrosion protection	Reduces the negative effects of moisture on system components
Effective oxidation and thermal stability	Reduce deposits and improve valve performance
Excellent anti-wear properties	Proven zinc-based additives help to reduce wear and protects pumps and components for extended equipment life
Ultra clean performance	Reduced system deposits leading to reduced machine maintenance and increased component life

## Gazpromneft Hydraulic HVLP series meets the requirements of

	Gazpromneft Hydraulic HVLP					
	10	15	22	32	46	68
DIN 51524 Part 3	✓	✓	✓	✓	✓	✓
Bosch Rexroth RE 90220			✓	✓	✓	✓

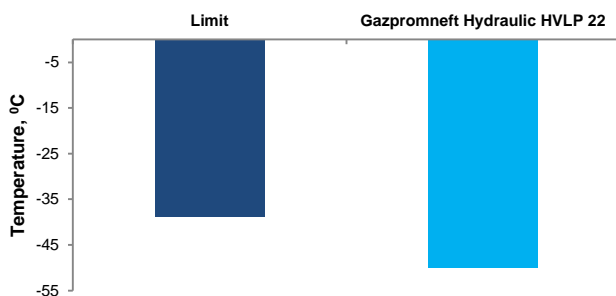
## Gazpromneft Hydraulic HVLP series has the following builder approvals

	Gazpromneft Hydraulic HVLP					
	10	15	22	32	46	68
Bosch Rexroth RDE 90245 Fluid Rating List				✓	✓	
Denison HF-0,1,2				✓	✓	✓
Eaton Vickers 35VQ25		meets	meets	✓	✓	✓
Fives Cincinnati				P-68	P-70	P-69

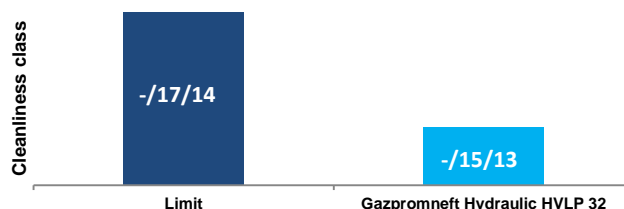
## Typical Characteristics

Properties	Method	Gazpromneft Hydraulic HVLP					
		10	15	22	32	46	68
ISO Viscosity Grade		10	15	22	32	46	68
Kinematic Viscosity @40°C, mm <sup>2</sup> /s	ASTM D445	10	15	22	32	46	68
Kinematic Viscosity @100°C, mm <sup>2</sup> /s	ASTM D445	3,0	4,0	4,9	6,4	7,9	10,5
Kinematic Viscosity @low temperatures, mm <sup>2</sup> /s	ASTM D445	1100 @-40°C	600 @-30°C	700 @-20°C	1200 @-20°C	1100 @-10°C	-
Viscosity Index	ASTM D2270	170	170	155	160	142	141
Flash Point (COC), °C	ASTM D92	175	160	196	218	226	230
Pour Point, °C	ASTM D97	-60	- 8	-50	-46	-40	-38
Cleanliness class, max	ISO 4406	-/17/14	-/17/14	-/17/14	-/17/14	-/17/14	-/17/14
Density @15°C, kg/m <sup>3</sup>	ASTM D4052	824	844	869	874	884	884

### Excellent low temperature performance\*



### Superior cleanliness\*\*



\*ASTM D97; \*\*ISO 4406

## Health, Safety & Environment

Information is provided for products in the relevant Safety Data Sheet (SDS). This provides guidance on potential hazards, precautions and first-aid measures, together with environmental effects and disposal of used products. SDS's are available upon request through your sales contract office. This product should not be used for purposes other than its intended use.