



## DESCRIPTION AND SCOPE OF APPLICATION

### Product description

**Rosneft Hidrotec ZF HVLP** is a multi-grade zinc-free hydraulic oil with a high performance level. It is produced based on highly refined mineral oils and an ash-free additive package providing high antioxidant, anticorrosion and anti-wear properties.

### Application

Rosneft Hidrotec ZF HVLP hydraulic oils are designed for all-season use in hydraulic systems of construction, road, logging, hoisting-and-transport equipment and other machines and units operating in a wide temperature range.

## APPROVALS AND SPECIFICATIONS

### Viscosity grades:

ISO VG: 15, 22, 32, 46

### Specifications and approvals:

DIN 51524-3 (HVLP), Sulzer, Kirovsky Zavod, OJSC



Contains a zinc-free anti-wear additive package



HVLP 15



HVLP 22



HVLP 32



HVLP 46



Provides improved corrosion protection for steel and non-ferrous metals



For hydraulic systems of industrial equipment and commercial vehicles



Effectively extends the service life of mechanisms

## ADVANTAGES

- Excellent low-temperature properties allow quick start-up of hydraulic systems without additional heating, reducing start-up time and wear of friction units when operating with cold oil;
- Designed for hydraulic systems of modern mobile equipment with copper and silver elements;
- Due to the absence of metal-containing compounds, the oil does not form deposits in the hydraulic system, which prevents the valves from “sticking” during operation, reduces the oxidation level and uncontrolled increase in the oil viscosity caused by the deposit dissolution;
- Improved air separation reduces the possibility of cavitation during the operation of high-speed hydraulic pumps, distribution and control valves, ensures the oil pressure stability;
- Oils of this series do not pollute the environment with heavy metals and zinc.

## PACKING

20 L, 216.5 L.

## Typical physical and chemical parameters

Parameter	Test method	Rosneft Gidrotec ZF HVLP			
		15	22	32	46
Kinematic viscosity at 40 °C, mm <sup>2</sup> /s	GOST 33	15,9	22,6	32,4	45,0
Viscosity index	GOST 25371	140	145	190	150
Color on TsNT colorimeter, units	GOST 20284	0,5	1,0	1,0	1,0
Ash content, %	GOST 1461	0,05	0,05	0,045	0,035
Acid number, mg KOH/g	GOST 11362	0,6	0,6	0,7	0,7
Foaming tendency:	GOST 32344				
at 24 °C		10	0	0	0
at 94 °C		30	20	20	20
at 24 °C after testing at 94°C		0	0	0	0
Open-cup flash point, °C	GOST 4333	155	180	180	206
Pour point, °C	GOST 20287	-58	-50	-45	-45
Density at 15 °C, kg/m <sup>3</sup>	GOST R 51069	862,2	-	871,6	875