

Hydraulic oil

AUTOL HLP-D 46 ZFR

DIN 51 524 T.2 HLP-D

ISO 11158 HM

AUTOL HLP-D 46 ZFR is a mineral-based, zinc-free hydraulic oil featuring highly effective EP additives and detergent/dispersant properties.

Characteristics (typical figures):

Characteristic	Unit	Value	Test method
Kin. Viscosity at 40°C	mm ² /s	45	DIN EN ISO 3104
Kin. Viscosity at 100°C	mm ² /s	6,7	DIN EN ISO 3104
Viscosity index	-	ca. 95	DIN ISO 2909
Density at 15°C	g/cm ³	0,880	DIN 51 757
Flash point	°C	210	DIN ISO 2592
Pour point	°C	-27	DIN ISO 3016
FZG test A/8,3/90	SKS	> 12	DIN ISO 14 635
Air release at 50°C	min.	7	DIN ISO 9120
Purity class	-	18/15/11	ISO 4406

Properties and performance:

AUTOL HLP-D 46 ZFR is a detergent and dispersant hydraulic oil based on mineral oil. It dissolves deposits, keeps contaminants in suspension, and emulsifies water and metalworking fluids without significantly impairing lubricating and corrosion-protection properties. Special additives improve sliding characteristics and prevent stick-slip effects.

AUTOL HLP-D 46 ZFR is suitable for hydraulic systems requiring HLP fluids, particularly mobile hydraulics, machine tools, and precision hydraulic systems. It reduces malfunctions caused by contamination and wear.

AUTOL HLP-D 46 ZFR meets or exceeds the requirements of DIN 51524-2 (HLP) and ISO 11158 (HM) (excluding demulsibility) and is also suitable for applications involving lead alloys.

AUTOL HLP-D 46 ZFR meets the requirement of:

Arburg

DLP lubricating oil according to DIN 51 502