



**Product Data Sheet:**

# HYDRAULIC OIL HVZF 46

## Product Description:

**HYDRAULIC OIL HVZF 46** is a premium quality zinc free anti wear hydraulic oil developed for use in high pressure hydraulic systems operating under varying temperatures where small viscosity changes with fluctuating temperatures are preferred.

**HYDRAULIC OIL HVZF 46** oil is formulated with carefully selected base stocks fortified with additives and a very shear stable viscosity index improver to impart excellent protection towards wear, rust and oxidation. The viscosity improver reduces the viscosity decrease with rising temperatures.

**HYDRAULIC OIL HVZF 46** is formulated with field proven thermally stable, zinc free based anti wear additives.

**HYDRAULIC OIL HVZF 46** provides excellent water demulsibility as well as de-aeration and effectively protects against rust and oxidation.

**HYDRAULIC OIL HVZF 46** can be used in hydraulic systems in stationary and mobile hydraulic systems, as well as for general machine lubrication.

## Specifications:

**Exceeds:** DIN 51524/3 HVLP, ISO 11158 HV, AFNOR NFE 48-603 HV, Denison HF-1, Cincinnati P-70, Eaton (Vickers), M-2950-S/ I-286-S, Hitachi

Property:	Test Method:	Typical Values:
ISO Viscosity Grade	ISO 3448	46
Density @ 15°C	ASTM D4052	875 kg/m <sup>3</sup>
Kinematic Viscosity @ 40°C	ASTM D7042	41.4-50.6 mm <sup>2</sup> /s
Kinematic Viscosity @ 100°C	ASTM D7042	8.8 mm <sup>2</sup> /s
Viscosity Index	ASTM D2270	>150
Flash Point (COC)	ASTM D92	>180°C
Pour Point	ASTM D97	-27°C
FZG Fail Load Stage, minimum	DIN 51354-2	11
Air Release Value @ 50°C	DIN 51381	<10 minutes
Demulsibility @ 54°C	DIN 51599	<40 minutes

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