



HO PREMIUM 46

HYDRAULIC OIL - HEES ISO VG 46

Description

PREMIUM Hydraulic oils are the first class fully synthetic hydraulic oils from saturated esters. They provide excellent high pressure and temperatures properties, multiple extendibility of change intervals and they are neutral to all kinds of sealing. They have a great cold-exposure characteristics.

Areas of Application

PREMIUM Hydraulic oils are designed to meet the highest hydraulic requirements. They are suitable when incidental spillages in environmentally sensitive areas can occur (agriculture, water power plants, forestry, public works, off-shores and other areas).

Characteristic features:

- Superior frictional performance
- Perfect anti-wear properties
- Very good hydrolytic stability
- Excellent in class low temperature properties
- Excellent thermos-oxidation stability
- Easily biodegradable according to OECD 301 B and OECD 301 D
- EU Ecolabel certificate (No. CZ/027/001)
- Good compatibility with sealing materials, paints and hoses
- Great protection against rust and corrosion
- With non-foaming additives
- HO **PREMIUM** hydraulic fluids are soluble with common mineral hydraulic fluids, poly-alpha-olefins (low and high viscosity) and esters.

Performance DATA:

- DIN 51524, part 1 (HL)
- AFNOR NF E 48-603 (HL)
- Cincinati-Milacrone) P-55 (HL-46)
- for HEES type – VDMA 24 568/ISO 15380
- FZG (DIN 51354, part 2)
- Vickers vane pump test (Type V 104-C, DIN 51389, part 2)
- Siemens TLV 9013 04



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CHARACTERISTICS OF HO PREMIUM	Method	UNIT	ISO VG 46
Viscosity 40°C	ASTM D445	mm ² /s	46
Viscosity 100°C	ASTM D445	mm ² /s	9,3
VI	ASTM D 2270		>180
Density (15 °C)	ASTM D 4052	g/cm ³	0,915-0,930
Flash point COC	ASTM D92	°C	>240
Pour point	ASTM D97	°C	<-50
Total Acid Number (TAN)	ASTM D 664	mg KOH/g	≤ 1
ASTM D 974	mg KOH/g	≤ 0,1	≤ 0,01
Hydroxil value	AOCS Cd 13-60	mg KOH/g	≤ 4
Iodine value	DGF C - V 11 B	gI ₂ /100g	≤ 1
Water content	ASTM D 4928	%	≤ 0,01
Foam Seq. 1/2/3	ASTM D 892	ml/ml	0/0/0
Air release 50°C	ASTM D 3427	min	<1
Copper corrosion (3h/100°C; 24h/100°C)	ASTM D 130	rating	1a/1a-1b
Steel corrosion Procedure A (distilled water); B (synthetic sea water)	ASTM D 665	rating	pass; pass
FZG Gear Test A 8.3/90 (visual) - damage load stage	DIN 51354, part 2)	rating	>12
RVPOT (150°C , H ₂ O, O ₂ , Cu Catalyst) - life time	ASTM D 2272	min	1143

SEAL COMPATIBILITY (ISO 6072) 100°C / 168H	NBR 1	HNBR	FKM2	AU
Change of Shore A hardness (Shore A)	-10	-8	-2	0
Change of tensile strength (%)	-15	-5,9	-17,6	-21,9
Change of elongation at break (%)	-16,9	-6,6	8	3,8
Change of volume (%)	14,9	14,9	1,2	-0,6

Vickers vane pump test type V 104-C (DIN 51389, part 2)	UNIT	ISO VG 46
Weight loss ring	mg	6
Weight loss vanes	mg	5

The above-listed data represent average values. They are intended as a guide to facilitate handling and cannot be regarded as specified data.

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