

HVC

HIGH VISCOSITY INDEX HYDRAULIC FLUID ISO CATEGORY-L-HV



HYDRAULIC RANGE

CATEGORY ISO-L-HV
ISO GRADE 15 TO 68
VI : 170

STANDARDS & SPECIFICATIONS

DENISON HF0
EATON BROCHURE 3-401-2010

Filtrabilité

Tenue à l'oxydation

Stabilité au cisaillement



APPLICATIONS

HVC is specially recommended for hydraulic systems operating at high pressure (higher than 350 bars) and high-efficiency systems, as well as installations in which there are high temperature variations.

HVC can be used in installations with servo-valves or piston, vane, screw or gear pumps, allowing thus a supply rationalisation.

HVC has a viscosity index of over 170, enabling it to be used over a very wide temperature range. This wide range of use allows **HVC 46** to replace favourably for HM hydraulic fluids of ISO grades 32, 46 and 68, for example.

BENEFITS

- Formulated with a polymer providing **excellent shear strength**, guaranteeing a stable ISO grade over time
- The **HVC** fluid's **viscosity index of 170** means it can be used on installations subject to very wide temperature variations: easier cold starts, perfect lubrication at hot.
- **HVC** is **highly hydrolytic and oxidation resistant** with an excellent air release, providing long life of in-use parts and cleanliness of circuits to optimise oil change intervals.
- **HVC** is a **high filterability level fluid (HF0)**, preventing early clogging of filters.
- Excellent deaeration, rapid demulsification and very **good anti-wear properties** for severe applications with all pumps, at high pressures (350 bar and more).
- **HVC** is a **high thermal stability fluid**, which can be used at operating temperatures of more than 80°C without deterioration of anti-wear additives.

PERFORMANCES

PERFORMANCE LEVELS

ISO 11158 Category HV
ISO 6743-4 Category HV
NFE 48603 Category HV
DIN 51524 Part 3 Category HVLP

DENISON HF0 ; HF2
EATON BROCHURE 3-401-2010
CINCINNATI LAMB P 68 (ISO grade 32)
CINCINNATI LAMB P 69 (ISO grade 68)
CINCINNATI LAMB P 70 (ISO grade 46)

CHARACTERISTICS

CHARACTERISTICS	UNITS	METHODS	TYPICAL DATA			
ISO grade	-	-	15	32	46	68
Colour	-	visual	Fluorescent green			
Specific gravity at 20°C	kg/m ³	NF T 60-101	860	864	867	876
Kinematic viscosity at 40°C	mm ² /s	NF T 60-100	13,7	32,8	50,1	72,2
Kinematic viscosity at 100°C	mm ² /s	NF T 60-100	3,74	6,9	9,4	12,3
Viscosity index	-	NF T 60-136	177	176	176	170
Pour point	°C	NF T 60-105	-39	-36	-36	-36
Flash point	°C	NF T 60-118	152	204	210	230
Aniline point	°C	NF M 07-021	98			
TAN	mg KOH/g	ASTM D 664	0,5			
Foaming sequence I	ml	NF T 60-129	0/0			
Foaming sequence II	ml	NF T 60-129	20/0			
Foaming sequence III	ml	NF T 60-129	0/0			
Air release at 50°C	min	NF T 60-149	-	2	1	3
Desemulsibility	ml (min)	NF T 60-125	-	40/40/0(15)	40/40/0(10)	40/40/0(10)
Copper corrosion	quotation	NF M 07-015	1a			
Anti rust test	-	NF T 60-151 A	Pass			
Hydrolytic stability 48h at 93°C	-	ASTM D 2619	Pass			
Oxidation resistance	hour	NF T 60-150	2700			
Thermal stability	-	CINCINNATI PROCEDURE	Pass			
Scar diameter 4-ball 40 kg/1h wear test	mm	NF E 48-617	0,5			
FZG damage load stage	-	DIN ISO 14635-1	-	10	10	11
AFNOR filterability dry, filterability index with 0.2 % water, filterability index	IF1 IF2	NF E 48-690 NF E 48-691	Pass Pass			
Shear resistance Viscosity loss at 40°C after 250 cycles (ORBAHN-BOSCH)	%	DIN 51382	< 1	< 1	< 4	< 6

This typical data is given for information only

HEALTH, SAFETY AND ENVIRONMENT

Disposal must be carried out in accordance with regulations in effect for the disposal of used mineral oils.

Must be stored away from bad weather conditions.

For further details, our Technical Department can provide assistance if necessary