



HVX

HYDRAULIC FLUID VERY HIGH PERFORMANCE HV



HYDRAULIC RANGE
CATEGORY ISO-L-HV
ISO GRADE 32 TO 68

STANDARDS & SPECIFICATIONS
DENISON HF0
EATON BROCHURE 3-401-2010



APPLICATIONS

HVX is a fluid of the best quality, with very high performance, specially developed to work under extreme conditions :

- hydraulic systems operating at very high pressures (superior to 350 bars)
- installations submitted to important and frequent temperature variations

HVX is particularly recommended for handling materials in climatic chambers, for injecting presses, for machine tools operating with servo-valves...

BENEFITS

- **HVX** has the advantage of an **exceptional resistance to shearing**, which allows **HVX** to keep its very high viscosity index (less than 1% of loss during the operation), with improved drain periods.
- **HVX's viscosity index 220** ensures a remarkable fluidity at low temperatures making starting easier, and a perfect lubrication at high temperatures. This wide operating range allows for example **HVX 46** to replace favourably HM hydraulic fluids of ISO grades 32, 46 and 68.
- **HVX** has a very good air release and a **high filterability level (HF0)**, which facilitates the separation of impurities and avoids the precocious filling in of the filters, even with presence of water.
- Its **high hydrolytic and oxidation stability** guarantees cleanliness of hydraulic systems and component service life.
- **HVX** has a **high thermal stability which** allows working at very high temperatures (superior to 90°C) without deterioration of the 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



TECHNICAL DATA SHEET

PERFORMANCE LEVELS

DENISON HF0
 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)
 BOSCH REXROTH 90220

CHARACTERISTICS

CHARACTERISTICS	UNITS	METHODS	TYPICAL DATA		
			32	46	68
ISO grade	-	-	32	46	68
Colour	-	visual	Fluorescent green		
Specific gravity at 20°C	kg/m ³	NF T 60-101	876	874	867
Kinematic viscosity at 40°C	mm ² /s	NF T 60-100	31,7	47,1	64,2
Kinematic viscosity at 100°C	mm ² /s	NF T 60-100	7,2	10,2	12,65
Viscosity index	-	NF T 60-136	203	214	203
Pour point	°C	NF T 60-105	-42	-42	-33
Flash point	°C	NF T 60-118	138	162	180
Aniline POINT	°C	NF M 07-021	100	106	100
TAN	mg KOH/g	ASTM D 664	0,72		
Foaming sequence I	ml	NF T 60-129	0/0		
Foaming sequence II	ml	NF T 60-129	40/0		
Foaming sequence III	ml	NF T 60-129	0/0		
Air release at 50°C	min	NF T 60-149	1	2	3
Demulsibility	ml (min)	NF T 60-125	40/40/0(10)	40/40/0(18)	40/40/0(30)
Copper corrosion	quotation	NF M 07-015	1a		
Rusting test	-	NF T 60-151 A	Pass		
Stability to hydrolysis 48 h at 93°C	-	ASTM D 2619	Pass		
Resistance to oxidation	hour	NF T 60-150	2900		
Thermal stability	-	CINCINNATI PROCEDURE	Pass		
Scar diameter 4-ball 40 kg / 1 h wear test	mm	NF E 48-617	0,5		
FZG damage load stage	-	DIN ISO 14635-1	10		
Shear stability :					
Viscosity loss at 40°C after 250 cycles (ORBAHN BOSCH)	%	DIN 51382	< 1		
AFNOR filterability dry, filterability index	IF1	NF E 48-690	Pass		
with 0,2% water, filterability index	IF2	NF E 48-691	Pass		

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.