



HYDRAULIC OILS

ADDINOL HV ECO FLUID 32, 46, 68

PRODUCT DESCRIPTION

ADDINOL HV ECO FLUID 32, 46 are mineral oil based pressure fluids. Compared to conventional hydraulic fluids these pressure fluids have been developed with all the latest additive technology to achieve outstanding friction behaviour. Thus that product range offers considerable energy saving potential which has already been proven in fleet tests.

APPLICATION

- Excellent suitability for the lubrication in modern hydraulic devices
- Particularly suitable for the application as pressure medium in outdoor hydraulic installations in all season use and operating under strongly differing temperatures such as hydrostatic circuits in construction machineries, forklifts, container and municipal vehicles

PLEASE NOTE

The HV Eco product of viscosity class ISO VG 68 is only available on request.

CHARACTERISTICS

- Newly developed additive technology with outstanding friction behaviour
- Best viscosity-temperature behaviour
- Resistant to conventional sealing materials
- Good wear and corrosion protection
- Very good ageing behaviour
- High shear stability
- Multi-grade character

SPECIFICATIONS

Meets the classification of:

- DIN 51524-3
- ISO 11158 (HV)
- AFNOR NFE 48603 (HV)
- CETOP RP 91 H (HV)
- DIN EN ISO 6743-4 (HV)

ADDINOL HV Eco Fluid 46 is approved acc. to:

- Arburg GmbH & Co. KG

Viscosity grade corresponds to:

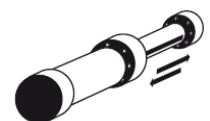
- ISO classification 3448
- DIN 51519

DELIVERY

Delivery preferable in loose commodities, drums and 20 l cans.

ADVANTAGES AND BENEFITS

- Energy saving, low running costs
- Very good low-temperature behaviour, also excellent high-temperature performance
- Faster flow rate at temperature peaks
- Higher hydraulic power at full-load
- Shorter reaction time of the hydraulic system
- Improved protection against leakages
- Failure-free operation also at using different metals
- Long oil lifetime
- Usable at all seasons
- Reduction of the product range; easier logistic handling





ADDINOL HV ECO FLUID 32, 46, 68

SPECIFICATIONS AND TYPICAL PARAMETERS

Feature	Test conditions / unit		HV ECO FLUID 32	HV ECO FLUID 46	HV ECO FLUID 68*	Method acc. to
ISO viscosity grade			32	46	68	DIN 51519
Density	at 15°C	kg / m ³	868	864	864	DIN 51757
Viscosity	at -20°C	mm ² /s	1370	2710	5130	ASTM D 7042
	at 0°C	mm ² /s	250	418	688	
	at 40°C	mm ² /s	32	46	68	
	at 100°C	mm ² /s	6.7	8.9	11.0	
Viscosity index			173	176	170	DIN ISO 2909
Flash point	COC	°C min.	210	230	235	DIN EN ISO 2592
Pour point		°C max.	-42	-36	-34	ASTM D 7346
Ageing behaviour Increase of NN	after 1000h	mg KOH/g	< 2.0			DIN EN ISO 4263-1
Relative drop in viscosity by shearing after 20h	40°C	%	10.8	13.6	16.2	DIN 51350-6
	100°C	%	12.8	15.9	20.3	
Corrosion protection on steel	method A		passed			DIN ISO 7120
	method B		passed			DIN ISO 7120
Corrosivity on copper	100°C, 3h	corr.level	1			DIN EN ISO 2160
Air separation ability	at 50°C	minutes	4	7	8	ISO 9120
Demulsifying properties	at 54°C	minutes	9	10	14	ISO 6614
Mech. test in FZG machine A/8.3/90		scuffing load stage	> 12			ISO 14635-1
Mech. test in vane pump			passed			DIN 51389-2
Foam characteristic	at 24°C	ml / ml	< 20 / 0			ASTM D 892
	at 93.5°C	ml / ml	< 20 / 0			
	at 24°C after 93.5°C	ml / ml	< 20 / 0			

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ADDINOL - The Experts for High-Performance Lubricants

We at ADDINOL develop and produce more than 600 high-performance lubricants of the new generation. Among these are automotive lubricants for highest demands and pioneering developments for industrial applications. Our customers all over the world benefit from the high and stable quality of our ADDINOL high-performance lubricants, our know-how and the individual customer advisory service of our competent experts. Our company has world wide activities. ADDINOL high-performance lubricants are distributed by more than 90 international partners.

The data given in this product sheet represent our current level of knowledge and experience. Due to the various specific application they do, however, not discharge the user from his own examination. The information provided herein may not be used to derive a legally binding warranty of specific properties or the suitability for a certain purpose of application. Detailed security-concerning and toxicological data as well as security instructions for each product can be taken from the corresponding Material Safety Data Sheets (MSDS). High-performance lubricants from ADDINOL are under continuous development. Therefore, ADDINOL Lube Oil GmbH keeps the right to change technical data in this product data sheet without notification. In case of doubt, please do not hesitate to contact our customers' advisory service.