













## ➤ ADDINOL Hydraulic fluids

Characteristics	ADDINOL	ISO-VG	DIN	min	syn	free of zinc	Application	Note
Corrosion and ageing protection	Hydraulic oil HL	10 ... 68	51524-1 (HL)	✓		✓	meets requirements in pumps and hydraulics, also for general lubrication	
+ Wear protection	Hydraulic oil HLP	10 ... 100	51524-2 (HLP)	✓			stationary and mobile, high pressures, demulsibility	
	Hydraulic oil HLP AF	32, 46, 68	51524-2 (HLP)	✓		✓	usage where hydraulic fluids free of heavy metals are required	
	Hydraulic oil HLPD	10 ... 68	51524-2 (HLP)	✓		✓	ideal for mobile plants working under the impact of water, dirt and dust	
	FoodProof HLP WX	46, 68	51524-2 (HLP)	✓		✓	plants in food, feed, pharmaceutical and cosmetics industry	
	FoodProof HLP S	15 ... 100	51524-2 (HLP) from ISO VG 32: 51524-3 (HVLP)		✓	✓	plants in food, feed, pharmaceutical and cosmetics industry ideal for higher temperatures	
+ High viscosity index for outstanding viscosity-temperature behaviour	Ecosynth HEES	32, 46	51524-2 (HLP)* 51523-3 (HVLP)* ISO 15380		✓	✓	application in ecologically sensitive areas	
	Ecosynth HEES EL	15, 32, 46, 68	51524-2 (HLP)* 51523-3 (HVLP)* ISO 15380		✓	✓	application in ecologically sensitive areas, high temperature stability	
	Hydraulic oil HVLP	15 ... 100	51523-3 (HVLP)	✓			outdoor hydraulics in all-season use and at strongly varying temperatures	
	HV Synth	32, 46, 68	51523-3 (HVLP)		✓	✓	for wide temperature range, highest ageing stability, optimum VI, low evaporation tendency, energy efficiency, large-scale industrial plants including thermal processes	
	HV Eco Fluid	32, 46	51523-3 (HVLP)	✓			outdoor hydraulics in all-season operation, industrial plants, excellent viscosity-temperature behaviour, energy saving potential	
	HV Eco Fluid AF	32, 46	51523-3 (HVLP)	✓		✓	outdoor hydraulics in all-season operation, industrial plants, excellent viscosity-temperature behaviour, energy saving potential	
	Hydraulic oil HVLPD	46, 68	51523-3 (HVLP) except demulsibility	✓		✓	mobile applications with strongly varying ambient temperatures	
	Arctic Fluid 5606	15	51524-3 (HVLP) except flash point 6743-4 (HV)			✓	ideal for mobile plants, low temperatures as well as equipment under arctic climate conditions	
	Arctic Fluid 22	22	51524-3 (HVLP) except flash point			✓	ideal for mobile plants, low temperatures as well as equipment under arctic climate conditions	
+ Detergent and dispersant effect against dust and wear particles	Ecosynth HVLPD S	10, 46	51524-3 (HVLP) except demulsibility		✓	✓	for applications with high requirements on water resistance as well as ecologically sensitive areas	
Contains water No flash or combustion point Corrosion protection Ageing protection Wear protection	Hydraulic Fluid HFC	32-46	6743-4 (HFC) ISO 12922		✓	✓	fire hazard plants in steel industry, coke oven plants, foundries, hardening plants, forming presses, injection moulding and die casting machines, mining engineering	
Free of water Corrosion protection Ageing protection Wear protection	Hydraulic Fluid HFD U	46, 68	6743-4 (HFD U) ISO 12922		✓	✓	fire hazard plants, usage in ecologically sensitive areas	 
Free of water Hydrolytic stability High material compatibility Corrosion protection Ageing protection Wear protection	EcoShield HF-FR	46, 68	6743-4 (HFD U) ISO 12922		✓	✓	fire hazard plants, usage in ecologically sensitive areas	 

## ➤ Tips for hydraulic oil maintenance

According to the experience of maintenance companies, 50 to 70 % of all malfunctions are due to an "inadequate condition of the hydraulic fluid". About 80 % of all hydraulic

system failures are caused by oil contamination. Careful oil maintenance therefore is a must!

### Checklist: Storage

- ✓ Make sure that the containers are clean and tight.
- ✓ Store dry and roofed, avoid exposure to direct sunlight and rain, in order to prevent access of dirt, dust and rainwater.
- ✓ Keep temperature variation to a minimum.
- ✓ Wipe the container before opening.
- ✓ Re-seal the container properly again immediately after removal.
- ✓ No intermediate or final storage outdoors.
- ✓ Store drums horizontally.

### Checklist: Before use

- ✓ Select oil according to requirements.
- ✓ Check the quality and condition of the oil.
- ✓ Adhere to filling quantities.
- ✓ Flush system before refilling.
- ✓ Avoid mixtures.
- ✓ Check compatibility before changeovers.
- ✓ Filtration prior to filling.
- ✓ Carry out used oil analysis if necessary.

### Checklist: In use

- ✓ Follow recommended operating time.
- ✓ Carry out measures for lubricant care (drain water, etc.).
- ✓ Do not add any additives in addition.
- ✓ Regular monitoring of the fluid condition, if necessary by means of analysis.
- ✓ Possible filtration during operation depending on requirements.
- ✓ Change filter shortly after changeover if possible, especially with high loads.
- ✓ Regular check and if necessary change of filters.
- ✓ Regular oil change.
- ✓ The cleaning of machines and plants with high-pressure cleaners can lead to water ingress → Filtration by means of special filter technology required.
- ✓ Check pipelines, flange connections and gaskets regularly for functioning in order to avoid air ingress.
- ✓ Check filling level regularly.
- ✓ Regular ventilation of the system.

