



Premium performance biodegradable hydraulic fluid

Product description:

Lopal Hypal M15 DP Hydraulic EAL HEES oil specifically designed for use in applications where environmental contamination may occur.

Lopal Hypal M15 DP Hydraulic EAL HEES oil is a zinc-free hydraulic fluid formulation, containing a mixture of unsaturated synthetic esters.

Customer benefits:

1. Biodegradable formulation helps reduce environmental contamination
2. Suited for a wide range of stationary and mobile hydraulic systems
3. Wide service temperature window from -40°C up to +105°C
4. Environmentally compatible with biodegradability at OECD 301F: >70%

Applications:

Lopal Hypal M15 DP Hydraulic EAL HEES 32 and 46 are suitable for a wide range of stationary and mobile hydraulic systems as recommended by ISO 15380, HEES.

Lopal Hypal M15 DP Hydraulic EAL HEES 32 and 46 should be used where there is a danger of soil or water pollution.

Typical applications are: mobile hydraulics in drainage areas and road construction, forestry and timber industries, ski racing vehicles, track maintenance, municipal vehicles and facilities, auto hoists, hydraulic engineering, forklifts, horticulture and landscaping, sewage plants, fresh water recovery, floating dredgers, sluices, water maintenance boats, tunneling machines, off-shore equipment, concrete pumps and track laying machines.

Performance:

DIN ISO 15 380 HEES , VDMA 24568, HEES

Typical test data:

Property	Method	Requirements		Results	
		ISO 32	ISO 46	ISO 32	ISO 46
Kinematic Viscosity	ISO 3104				
40°C , mm ² /s		28.8-35.2	41.4-50.6	31.18	47.19
100°C , mm ² /s		5.0 min	6.1 min	6.246	8.504
Pour Point, °C	ISO 3016	-18 max	-15 max	-66	-60
Density at 15°C, kg/m ³	ISO 3675	Report	Report	924	945
Colour	ISO 2049	Report	Report	1.0	1.0
Appearance	Visual	Clear & Bright	Clear & Bright	Clear & Bright	Clear & Bright
Ash Content, %	ISO 6245	Report	Report	0.02	0.01
Flash Point(COC), °C	ISO 2592	175 min	185 min	270	276
Acid Number, mg KOH/g	ISO 6618	Report	Report	0.3	0.3
Copper Corrosion 3 hours at 100°C	ISO 2160	2 max	2 max	1a	1a
Rust Prevention Properties, 24hrs Deionised Water	ISO 7120	pass	pass	pass	pass
Foam Properties Sequence I, mls Sequence II, mls Sequence III, mls	ISO 6247	150/0 80/0 150/0	150/0 80/0 150/0	0/0 0/0 0/0	0/0 0/0 0/0
Air Release at 50°C, mins	ISO 9120	7 max	10 max	4	4

The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved. This supersedes all previous editions and information contained in them.