

## DIVYOL ENTRO HLP HYDRAULIC OILS – HLP 32 / 46 / 68 / 100 / 150

### Applications:

Divyol Entro HLP type Hydraulic Oils of grades 32, 46, 68, 100 and 150 are specially formulated for the lubricating requirements of all heavy duty hydraulic applications (both mobile and stationery) requiring high level of wear protection. These oils are ideal for all hydraulic pumps, including high-pressure, high-speed vane, gear, axial and radial piston pumps, except pumps containing silver plated component. Besides hydraulic equipment operating under extreme conditions, it is also used for automated machine tools, press, die casting machines, circulating systems and hydraulic control systems.

### Standards:

Divyol Entro HLP type Hydraulic Oils conform to performance specifications of DIN 51524 Part II (HLP type); Eaton Vickers I-286-S, M-2950-S; IS:10522-1983 (Reaffirmed 1993), IS:11656-1986 (Reaffirmed 1991); Denison HF-0, HF-1, HF2; US STEEL 127, 136; and Cincinnati Machine P-68, P-69, P70.

### Advantages:

Divyol Entro HLP type Hydraulic Oils have excellent thermal, hydrolytic and oxidative stability as well as anti-foaming quality (from increased demulsibility) adding to their anti-wear properties. These features enable fast air release and optimise system performance and reliability.

### Typical properties:

Sr. No.	Characteristics	Test Method	Divyol Entro HLP Hydraulic Oils				
			32	46	68	100	150
1	Appearance	Visual	Clear, water white and bright	Clear, water white and bright	Clear, water white and bright	Clear, water white and bright	Clear, water white and bright
2	Kinematic viscosity, cSt at 40 °C	ASTM D 445	30 – 32	42 – 50	62 – 74	90 – 110	135 – 165
3	Kinematic viscosity, cSt at 100 °C, min.	ASTM D 445	5.6	7.2	9.0	12.3	15.2
4	Viscosity index, min.	ASTM D 2270	110	110	110	100	95
5	Flash point (COC), °C, min.	ASTM D 92	190	210	220	225	230
6	Pour point, °C, max.	ASTM D 97	-15	-15	-15	-12	-9
7	Emulsion test at 54 °C (mins, max.)	ASTM D 1401	40-37-3(20)	40-37-3(20)	40-37-3(20)	–	–
8	Emulsion test at 82 °C (mins, max.)	ASTM D 1401	–	–	–	40-37-3(30)	40-37-3(30)
9	FZG, Rating stage failure	DIN 51354	11	11	11	11	11
10	Copper strip corrosion at 100 °C 3 hrs.	ASTM D 130	1a	1a	1a	1a	1a
11	Rust characteristics	ASTM D 665/B	Complies	Complies	Complies	Complies	Complies
12	Foaming test, foaming stability after 10 mins settling time, foam, ml	ASTM D 892					
	at 24 °C, max		Nil	Nil	Nil	Nil	Nil
	at 93 °C, max		Nil	Nil	Nil	Nil	Nil
	at 24 °C after cool down from 93°C, max.		Nil	Nil	Nil	Nil	Nil
13	Neutralization number, mg KOH/g	ASTM D664	1.0	1.0	1.0	1.0	1.0

The above properties are typical values and do not constitute specification of the product.

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