

## DIVYOL ENTRO AW X HYDRAULIC OILS – SERIES

### Applications:

Divyol Entro AW 'X' type Hydraulic Oils of grades 32X, 42X, 68X, 100X, 150X, 220X and 320X are specially blended fluids for the lubricating requirements of all heavy duty hydraulic applications (both mobile and stationery) requiring high level of wear protection. These oils are recommended 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 AW 'X' type Hydraulic Oils conform to performance standards as per DIN 51524 Part II; Eaton Vickers I-286-S, M-2950-S; Denison HF-0, HF-1, HF2; Cincinnati Machine P-68, P-69, P70; US STEEL 126; Bosch Rexroth RDE 90235; ZF TE-ML 07 H, ZF TE-ML 21M; Eaton Brochure- 02-401-2010; GM LS-2; ISO:11158, HL, HM; and Danieli 0.000.001 Type 10 & 11.

### Advantages:

Divyol Entro AW 'X' type Hydraulic Oils possess excellent oxidation resistance quality and good de-foaming properties, offering superior anti-wear compared to normal grade oils with the same specifications. The blend protects hydraulic system internals against rust and corrosion and its higher film strength results in excellent equipment performance. It also reduces other negative effects of moisture in the system. The oil has good filterability and works for a longer duration, thereby extending service life of equipment as well as the filter.

### Typical properties:

Sr. No.	Characteristics	Test Method	Divyol Entro AW X Hydraulic Oils						
			32X	46X	68X	100X	150X	220X	320X
1	Appearance		Clear and bright	Clear and bright	Clear and bright	Clear and bright	Clear and bright	Clear and bright	Clear and bright
2	Colour, max.	ASTM D 1500	0.5	0.5	L 0.5	L 05	3.0	3.5	L 4.0
3	Kinematic viscosity at 40 °C, cSt	ASTM D 445	30 – 34	42 – 50	62 – 74	90 – 110	135 – 165	200 – 240	300 – 340
4	Kinematic viscosity at 100 °C cSt, min.	ASTM D 445	5.6	6.9	8.7	11.3	8.3	10.2	12.6
5	Viscosity index, min.	ASTM D 2270	105	96	99	99	98	99	97
6	Flash point (COC), °C, min.	ASTM D 92	210	210	220	225	230	245	258
7	Pour point, °C, max.	ASTM D 97	(-) 18	(-) 18	(-) 18	(-)18	(-)3	(-)3	(-)3
8	Emulsion test at 54 °C (mins, max.)	ASTM D 1401	40-37-3(20)	40-37-3(20)	40-37-3(20)	-	-	-	-
9	Emulsion test at 82 °C (mins, max.)		-	-	-	40-37-3(30)	40-37-3(30)	40-37-3(30)	40-37-3(30)
10	FZG, Rating stage failure, min.	DIN 51354	11	11	11	11	10	10	10
11	Copper strip corrosion at 100 °C, 3 hrs.	ASTM D 130	1a	1a	1a	1a	1a	1a	1a
12	Turbine oil stability test, hrs.	ASTM D 943	3000	3000	3000	5000	5000	5000	5000
11	Foaming test, foaming stability after 10 mins. settling time, foam, ml	ASTM D 892							
	at 24°C, max		Nil	Nil	Nil	Nil	Nil	Nil	Nil
	at 93 °C, max		Nil	Nil	Nil	Nil	Nil	Nil	Nil
	at 24°C after cool down from 93 °C, max		Nil	Nil	Nil	Nil	Nil	Nil	Nil
12	Neutralization number mg KOH/g	ASTM D664	0.8	0.8	0.8	0.8	0.8	0.8	0.8

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

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