

UNITRANS HD

Universal transmission oil

Description

UNITRANS HD is a high quality heavy duty lubricant for use in off-highway equipment. It is specially formulated for common use in heavy equipment.

Applications

UNITRANS HD is recommended for off-highway equipment's Transmissions, Wet Disc Brake, Hydraulics, and Final Drives.

Specification Meets

Specification Approvals :

- ▶ ZF TE-ML-03C
- ▶ ZF TE-ML-07F

Performance Levels:

- ▶ CAT TO-4 and TO-4M
- ▶ Allison C4
- ▶ Komatsu KES 07.868.1 (2002)
- ▶ API MT-1

Advantages

- ▶ Outstanding friction control
- ▶ Superior wear protection and load carrying
- ▶ Prolonged life of brakes and transmissions
- ▶ Good oxidation stability
- ▶ Good elastomer compatibility

Typical Data of UNITRANS HD

Characteristics	Unit	UNITRANS HD			Test Method
		10W	30	50	
Color		L 1.5	L 1.5	L 3.5	ASTM D 1500
Density @ 15 °C	kg/l	0.8721	0.8863	0.9002	ASTM D 4052
Kinematic Viscosity @ 40 °C	cSt	42.58	95.84	237.91	ASTM D 445
Kinematic Viscosity @ 100 °C		6.70	10.85	19.97	
Viscosity Index		111	97	97	ASTM D 2270
Flash Point (COC)	°C	230	240	252	ASTM D 92
Pour Point	°C	-42	-30	-21	ASTM D 97
CCS, @-25°C	Cp	5299	-	-	ASTM D 5293
Sequence I : 24 °C	ml	0/0	0/0	20/0	ASTM D 892
Sequence II : 93.5 °C		10/0	10/0	10/0	ASTM D 892
Sequence III : 24 °C after 93.5 °C		0/0	0/0	20/0	ASTM D 892
Total Base Number	mg KOH/g	9.243	9.364	9.559	ASTM D 2896

* the typical characteristic mentioned represent mean values