

Product Description

HI-PUMP is high performance hydraulic fluid under both severe mechanical stress and across a wide range of temperature conditions. It formulated from S-OIL's aramcoULTRA (The trademark of S-OIL's Group III base oils) base stocks and exclusive ash-less technology additive system designed for providing outstanding protection and performance in most mobile applications. It's excellent thermal & oxidation resistance delivers good performance and extended oil drain intervals. It also provides effective low and high ambient temperature performance due to high viscosity index and shear stability.

Applications

- Suitable for a wide range of hydraulic power mobile applications under wide temperature range
- Any hydraulic system where risk of contamination of the environment and water exist
- Any application where an anti-wear, high VI and high performance oil is necessary
- Low toxicity towards the environment

Features and Potential Benefits

- Outstanding wear protection: Advanced Zinc-free additives ensure protection of machine parts
- Long fluid life: Reducing maintenance costs
- Maintaining system efficiency: Superior cleanliness and excellent filterability
- Environmentally friendly formulation: Prevent formation of deposit
- Extended temperature range capability

Performance Level

- ISO 11158 (HV)
- ASTM D6158 (HV)
- SAE MS 1004 (HV)
- DIN 51524 PART II (HLP)/III (HVLP)
- Cincinnati Machine P68/P69/P70
- GM LH-04-1/LH-06-1/LH-15-1
- Eaton Vickers I-286-S/M-2950-S
- Bosch Rexroth RE 90220
- AFNOR NFE 48603 (HM)
- US Steel 127/136
- Denison HF-0/HF-1/HF-2

Typical Properties

Test Items	Method	Unit	15	22	32	46	68	100	
Specific Gravity	ASTM D1298	-	0.8369	0.8364	0.8459	0.8475	0.8639	0.8730	
Color	ASTM D1500	-	L0.5	L0.5	L0.5	L0.5	L0.5	L0.5	
Viscosity	ASTM D445	40°C	15.55	22.25	32.63	46.24	67.69	98.87	
		100°C	3.97	4.93	6.39	8.20	10.86	14.50	
Viscosity Index	ASTM D2270	-	161	153	151	153	150	152	
Flash Point	ASTM D92	°C	206	230	244	250	252	256	
Pour Point	ASTM D97	°C	-50	L-40	-45	-40	-40	-37	
Total Acid Number	ASTM D664	mgKOH/g	0.19	0.21	0.20	0.20	0.19	0.20	
Water Separability	ASTM D1401	Min	10	10	10	10	10	10	
Cu Corrosion (100°C, 3hrs)	ASTM D130	-	1b	1b	1b	1a	1b	1b	
Foam Tendency	ASTM D892	Seq. I	ml/ml	10/0	10/0	10/0	10/0	10/0	10/0
		Seq. II	ml/ml	10/0	10/0	10/0	10/0	10/0	10/0
		Seq. III	ml/ml	10/0	10/0	10/0	10/0	10/0	10/0
Rust Prevention (60°C, 24hrs)	ASTM D665B	-	Pass	Pass	Pass	Pass	Pass	Pass	
TOST Life	ASTM D943	hrs	-	-	>8,000	>8,000	>8,000	-	