

UNITED FIRE-RESISTANT HYDRAULIC OIL EFR

Product Description

Fire-Resistant Hydraulic Oil is a synthetic polyol ester-based hydraulic fluid specifically developed for severe-duty hydraulic applications where fire hazards are present and conventional petroleum-based hydraulic oils may pose safety risks. It offers excellent thermal and oxidative stability, enabling prolonged retention of fire-resistant properties while minimizing sludge and deposit formation during extended service.

Formulated without water, mineral oil or phosphate esters, it is blended with high-quality synthetic base stocks and carefully selected performance additives. The fluid features a higher flash point compared to conventional mineral oil-based hydraulic oils, helping to reduce flame propagation in the event of ignition. It provides excellent lubricity and wear protection, supporting reliable hydraulic system operation and extended service life.

Environmentally considerate in design, the product is non-irritating, non-toxic to aquatic organisms and readily biodegradable, making waste handling more manageable. Its high viscosity index and low pour point ensure stable performance across a wide temperature range, allowing effective operation in both high and low ambient conditions while maintaining overall hydraulic system efficiency.

Applications / Benefits

- * Enhances piston cleanliness
- * Satisfies wide variety of OEM demands
- * Provides superb performance even with extended drain interval
- * Suits Euro V and VI emission requirements

Typical Characteristics

Test Description	Method	Unit	22	32	46	68
ISO Viscosity Grade	-	-	22	32	46	68
Density @ 15 °C	ASTM D 4052	kg/L	0.891	0.906	0.918	0.927
Flash Point	ASTM D 92	°C	238	242	320	325
Pour Point	ASTM D 97	°C	-39	-36	-36	-30
Kinematic Viscosity @ 40°C	ASTM D 445	cSt	22.4	33.1	47.5	68.3
Kinematic Viscosity @ 100°C	ASTM D 445	cSt	5.2	7.0	9.5	12.1
Viscosity Index	ASTM D 2270	-	174	180	189	175

Specifications, Approvals & Recommendations

* ASTM	D6158 HL, HM, HV
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* BOSCH REXROTH	RDE 90235
* CHINESE STANDARD	GB 11118.1 L-HL & L-HM (HIGH PRESSURE & GENERAL)
* DANIELI	0.000.001 TYPE 10 & 11
* DANFOSS (EATON)	BROCHURE 03-401-2010
* DANFOSS (EATON)	E-FDGN-TB002-E
* DIN	51524
* EATON VICKERS	I-286-S
* EATON VICKERS	M-2950-S
* FIVES CINCINNATI	P-68, P-69 & P-70
* GM	LS-2 ANTIWEAR HYDRAULIC OIL
* ISO	11158
* JCMAS	HK P041
* PARKER DENISON	HF-1, HF-2, HF-0
* SAE	MS1004
* SWEDISH STANDARD	SS 155434:2015
* U.S. STEEL	126
* ZF	TE-ML 07H
* ZF	TE-ML 21M

Reference No.
6301G5HYDEFRRV0

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