OFFICIAL**TECH**
10W30 MS EXTRA

This heavy-duty diesel engine oil is a semi-synthetic lubricant offering exceptional wear resistance. It is capable of maintaining its original composition thanks to its outstanding oxidation resistance, shear resistance and aeration control, giving it an increased drain interval compared to previous formulations.

APPLICATIONS

Both modern and older engines benefit from the backward compatible heavy-duty diesel engine oil for most OEMs, making it a perfect match for a wide range of engine types. It is capable of offering optimal protection to a range of Caterpillar, Mack, Renault, Volvo and other market-leading engines with or without after-treatment system, turbocharger or supercharger. It is compatible with emission control technology EURO IV, V and VI for trucks; as well as stage IIIB, IV and Tier 4i, 4f for heavy-duty off-road.

FEATURES

Optimal engine lifespan.
High fuel economy.
Increased engine performance.

SPECIFICATION LEVEL

ACEA	E9-16	JASO	DH-2
API	CK-4	MACK	Approval EO-S 4.5
API	CJ-4	MAN	M3575
CATERPILLAR	ECF-3	MB	228.31
CUMMINS	CES 20086	MTU	Oil Category 2.1
DETROIT DIESEL	DFS 93K222	RENAULT	RLD-4
DEUTZ	DQC-III-10 LA	VOLVO	Approval VDS-4.5

TYPICAL CHARACTERISTICS

Test	Method	Unit	Average results
Density at 15°C	ASTM D4052	g/ml	0.858
Kinematic viscosity at 40°C	ASTM D445	mm²/s	74.1
Kinematic viscosity at 100°C	ASTM D445	mm²/s	11.6
Viscosity index	ASTM D2270		151
B.N. (HCLO4 method)	ASTM D2896	mg KOH/g	9.5
Pour point	ASTM D6892	°C	-45
Sulfated Ash	ASTM D874	Mass %	1.0
Flash Point COC	ASTM D92	°C	232

We reserve the right to alter the general characteristics of our products in order to let our customers benefit of the latest technical evolutions.

wolf
THE VITAL LUBRICANT