

## Description

THPD (Top High Performance Diesel) synthetic lubricant oil designed to meet the most demanding requirements for next generation EURO III, EURO IV and EURO V diesel engines. Product specifically designed for the most modern vehicles requiring ACEA E7, API CI-4 lubricants. Its carefully prepared formula enables a longer oil change period.

## Properties

- Can be used when biodiesel is used as a fuel, following the recommended change periods established by the manufacturers.
- Multigrade oil encompassing a wide range of temperatures; very stable and excellent shearing resistance, it maintains its design viscosity during the whole life of the oil.
- Great detergent dispersant power, ensuring total cleanliness of the engine elements. Exceptional soot dispersion capacity, which means it is specially recommended for engines fitted with EGR-type emission reduction systems.
- It prevents casing polishing of cylinders, which is so typical of large horsepower supercharged engines.
- Prevents the formation of lacquers and varnishes thanks to its dispersant additives.
- Its alkaline reserve (TBN) enables it to protect the engine against corrosion by neutralising the acids formed in the combustion of diesel with different sulphur contents.
- According to service conditions and the type of EURO III, EURO IV and EURO V engine, this product may prolong the oil change period, though the engine manufacturer's recommendations must always be followed.

## Quality levels, approvals and recommendations

- ACEA E7
- MAN 3275\*
- MACK EO-N\*
- API CI-4/SL\*
- CUMMINS CES 20077/20076\*
- CATERPILLAR ECF-2
- MB-Approval 228.3\*
- VOLVO VDS-3\*
- DETROIT DIESEL DDC 93K215
- MTU Type 2
- DEUTZ DQC III-10\*
- RENAULT RLD-2/RLD\*

\*Formal approval

## Technical specifications

	UNIT	METHOD	VALUE
SAE Grade			10W-40
Density at 15 °C	g/mL	ASTM D 4052	0.873
Viscosity at 100 °C	cSt	ASTM D 445	14.6
Viscosity at 40 °C	cSt	ASTM D 445	90
Viscosity at -25 °C	cP	ASTM D 5293	<7000
Viscosity index	-	ASTM D 2270	150
Flash point, open cup	°C	ASTM D 92	225
Pour point	°C	ASTM D 97	-30
T. B. N.	mg KOH/g	ASTM D 2896	10
Sulphated ashes	% weight	ASTM D 874	1.3
Bosch Injector: Viscosity at 100 °C after 90 cycle shear	cSt	CEC L-14-A-93	>12.5

The above mentioned characteristics are typical values and should not be considered product specifications.