

## 100% synthetic engine oil.

A lubricant produced using Low SAPS and Fuel Eco additives to lubricate the latest generation of engines fitted with after-treatment systems which meet Tier 4 Final (STAGE IV) emissions standards for construction vehicles and agricultural equipment or Euro VI and later standards for HGVs and buses.

### PERFORMANCES

#### Standards :

ACEA E9, E7, E6-08 Issue 2  
API CJ-4/ SN

#### Specifications :

**MB-Approval 228.51/ 228.31\***  
Mercedes-Benz MB 235.28  
**MAN M3477\*/ MAN M3677\***  
**MAN M3271-1\*/ M3277\*/ MAN M 3275\***  
MTU Type 3.1  
VOLVO **VDS-4\*/ VDS-3**  
RENAULT RXD, **RLD-3\***, RLD-2, RGD  
MACK EO-O PP, EO-N PP, **EO-M Plus\***  
**Deutz DQC IV-10 LA\***  
CUMMINS CES 20081  
JASO DH-2  
CATERPILLAR ECF-3  
VOITH RETARDER OIL CLASS B  
DAF  
IVECO  
**Scania Low Ash Approval\***

\* **Approved quality.** Use recommended under manufacturers' warranties.

### ORGANISATIONS & MANUFACTURERS - Scope of application -

**ACEA E9-08:** For Euro 3/4/5/6 engines with EGR, and NOx treatment.

**ACEA E7-08:** For Euro 3/4/5 engines **with EGR, NOx treatment without DPF** / Extended oil change intervals. Satisfies previous ACEA E5/E3 standards.

**ACEA E6-08:** For Euro 1/2/3/4/5/6 engines **with SCR or DPF** / Extended oil change intervals.

**API CJ-4:** The standard in force from 2007 with DPF exhaust gas purification systems.

**VOLVO VDS-4 from 2009:** For Volvo Euro 3/4/5 (ACEA E9) engines / Oil change intervals extended to a maximum of 100,000 km.

**MERCEDES MB 228.51:** For engines **with DPF** / Oil change intervals extended (ACEA E6) to a maximum of 120,000 km.

**MAN M 3477:** For Euro 4/5 engines requiring a Low SAPS oil / Oil change intervals extended (ACEA E6) to a maximum of 100,000 km.

**MAN M3677:** For Euro VI engines requiring a Low SAPS oil equivalent to ACEA E6-12 (2012).

**RENAULT RXD:** ACEA E4 + E7 + Volvo VDS-3, for extended oil change intervals, for Renault Euro 5, Euro 4 and Euro 3 engines.

**DEUTZ DQC III-10:** High-performance oil for engines with post-treatment systems (SCR/\*\*DPF).

## ADVANTAGES

PRO 500X formulation offers the following advantages:

- Fuel economy of up to 1.3% compared with a 15W-40 ACEA E7 oil according to the OM 501 FE test (saving of €1,330 of fuel or 1900 additional km per year, for 1 vehicle).
- A reduction in the adverse effects of fuel dilution by biodiesel.
- Low sulphated ash, Phosphorous & Sulphur levels, respecting the latest de-pollution system technologies (EGR, FAP, SCR, etc.).
- Extension of oil change intervals in accordance with manufacturer's recommendations.

Characteristics	Standards	Units	Values
Density at 15°C	ASTM D4052	g/ml	0.855
Viscosity at 40°C	ASTM D445	mm <sup>2</sup> /s	70.9
Viscosity at 100°C	ASTM D445	mm <sup>2</sup> /s	12
HTHS viscosity	CEC L-36-A-96	mPa s	3.5
Viscosity index	ASTM D2270	-	166
Pour point	ASTM D972	°C	-51
Viscosity at -30°C	ASTM D5293	mPa.s	6090
COC flash point	ASTM D	°C	226
Noack (volatility)	ASTM D5800	%m	<12
TBN (Alkalinity reserve)	ASTM D2896	Mg KOH/g	10
Sulphur content	ASTM D5185	%m	<0.3
Phosphorous content	ASTM D5185	%m	<0.08
Ash content	ASTM D874	%m	0.99

*Characteristics are given for information only and correspond with our manufacturing standards. IGOL reserves the right to modify them to provide its customers with the benefits of technical progress. Before using this product read the instructions for use and the environmental impacts mentioned in the technical and safety data sheets. The information given above is based on the current level of knowledge relative to the product concerned. The product user should take all useful precautions relative to its use. IGOL can in no circumstances be held responsible for damage resulting from incorrect use.*

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