

**Lubricant satisfying the strictest standards in force intended for use in applications such as Public Works, Transport and Agriculture.**

PRO 400X exists in three grades SAE 10W-30, SAE 10W-40 and SAE 15W40.

PRO 400X has been developed for latest generation engines satisfying the Euro V and Euro VI standards. Compatible with previous engines.

PRO 400X satisfies the standards limiting the pollutant emissions: Stage IV /Tier 4 Final standards. Stage IV or Tier 4 final standards.

## PERFORMANCES

**Standards:** ACEA E9-08 Issue 2

API CI-4/CJ-4/CH-4/CG-4/SN/SM

**Specifications:**

MTU Type 2.1

Caterpillar ECF -3, 2, 1-a

**DEUTZ DQC III-10 LA\***

JASO DH-2 (Grade 10W-30)

DAF Euro VI motorizations

CNH MAT 3521 (Grade 10W-30)

**VOLVO VDS-4\*/ VDS-3 / VDS-2**

MERCEDES MB p.228.31

MAN M 3575

CUMMINS CES 20081

**RVI RLD-3/RLD-2/RLD\***

**MACK EO-O Premium Plus\***

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

## ORGANISATIONS & MANUFACTURERS - Scope of application -

**ACEA E9-08 Issue 2:** for Euro 3/4/5 engines with EGR\*, NOx treatment.

**API CJ-4:** Standard from 2007 with DPF exhaust gas purification system.

**API SN:** Petrol = SM + exhaust system protection + Turbocharger.

**API SM:** Petrol from 2005 with reduced energy consumption.

**VOLVO VDS-4:** from 2009: for Volvo Euro 3/4/5/6 (ACEA E9) engines + oil change intervals extended up to a maximum of 100,000 km.

**MERCEDES MB 228.31:** for engines with DPF\*\* / Standard oil change intervals.

**RENAULT RLD-3:** ACEA E9-08 + Volvo VDS-4.

**MAN M 3575:** ACEA E9 + API CJ-4 for engines outside Europe.

**CUMMINS CES 20081:** for Cummins engines with EGR\* requiring an API CJ-4 oil.

**MTU type 2.1:** Multigrade oils low in ash-forming additives (Low SAPS oils).

**Caterpillar ECF-3, 2, 1-a:** to satisfy the requirements of nonroad vehicles, in Caterpillar engines produced in 2007 fitted with DPF\*\*/ oil change intervals 500h.

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

**JASO DH-2:** Lubricant for Japanese diesel engines with particulate filters.

\*EGR: (*Exhaust gas recirculation*) Exhaust gas recirculation fitted to the exhaust system to combat pollution.

\*\*DPF: Particulate filter

## USES

**PRO 400X** is suitable for engines without particulate filters or catalytic converters. Suitable for Diesel and Petrol fuels, biofuels and other fuels approved by manufacturers.

### TRANSPORT :

**PRO 400X** is suitable for Euro V/ Euro VI EGR engines with or without particulate filters, and also for Euro V and Euro VI engines with SCR (Selective Catalytic Reduction) exhaust gas post-treatment systems using Ad-Blue.

### PUBLIC WORKS EQUIPMENT:

- Applications for **Diesel engines** with EGR, with or without particulate filters, in public works equipment subject to severe conditions and especially for reduced emissions engines equipping recent models of public works machines: Stage IV or Tier 4 Final engines
- Applications in **hydraulic circuits** when engine oil is recommended (Caterpillar, Liebherr, Komatsu, Hitachi, etc.)
- **Transmission** applications when engine oil is recommended (Caterpillar, Liebherr, Komatsu, etc.)

## AGRICULTURAL MACHINES:

**PRO 400X** is suitable for Tier 4 Final and Stage IV engines with DOC (Diesel Oxidation Catalyst) required to satisfy the requirements of 2011 emissions standards).

**PRO 400X** enables oil change intervals to be extended in accordance with manufacturers' recommendations:

- up to **500 hours** of operation

Characteristics	Standards	Units	15W40	10W40	10W30
Density at 15°C	NFT 60-101	kg/m <sup>3</sup>	875	867	869
Viscosity at 40°C	ASTM D445	mm <sup>2</sup> /s	109	94.9	79.9
Viscosity at 100°C	ASTM D445	mm <sup>2</sup> /s	14.6	14.1	11.9
Index Viscosity	NF T 60-136	-	138	152	143
Pour point	ASTM D2602	°C	-39	-45	-42
Viscosity at -25°C	ASTM D2602	mPa.s	-	< 7000	< 7000
Viscosity at -20°C	ASTM D5293	mPa.s	< 7000	-	-
TBN	ASTM D2896	mg KOH/g	7.7	7.5	7.7
Ash content	ASTM D4951	masse %	Max 1	Max 1	Max 1

*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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