

An extremely top-of-the-range synthetic lubricant, developed based on “Low SAPS” technology, and specially designed for EURO V/EURO VI engines (HGVs and buses) and Tier 4 interim/Stage IIIB engines (agricultural and construction machinery).

A versatile product with numerous approvals.

PERFORMANCES

Standards: ACEA E6-08 Issue 2 (2010)
 ACEA E7-08 Issue 2 (2010)
 ACEA E9-08 Issue 2 (2010)
 API CI-4

Specifications:
MB-Approval.228.51*
MAN M3477*/M3277 (Low Ash)
Renault Truck RGD*
Renault Truck RXD*
 MTU Type 3.1
JASO DH-2*
Volvo VDS-3
 Volvo CNG
 Mack EO-N/M Plus
 Cummins CES 20076/20077
 Cat ECF-1-a
Deutz DQC IV-10 LA*
Scania Low Ash Approval*
 ZF TE-ML 03A

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

ORGANISATIONS & MANUFACTURERS - Scope of application -

ACEA E6: For Euro I/II/III/IV/V systems recommended for engines fitted with EGR, SCR and DPF, extended oil change intervals.

ACEA E7: For Euro I/II/III/IV/V systems equipped with EGR and SCR but not DPF, extended oil change intervals.

ACEA E9-08 issue 2: For Euro 3/4/5 engines equipped with EGR, NOx treatment.

API CI-4N: Standard since 2002 for engines equipped with EGR.

MB 228.51: For engines fitted with DPF / Extended oil change intervals (ACEA E6) of 120,000 km max.

MAN M 3477: For Euro IV/V engines requiring “Low SAPS” oil / Extended oil change intervals (ACEA E6) of 100,000 km max.

MAN M 3277: Concerns very long-life oils, up to 80,000 km, level E4-99.

RENAULT RGD: For Renault RGD natural gas engines.

RXD: ACEA E4 + E7 + Volvo VDS-3, for extended oil change intervals, for Euro V, Euro IV or Euro III Renault engines.

MTU type 3.1: A multigrade oil containing low-ash additives.

JASO DH-2: Diesel, resistance similar to api CJ-4 and ACEA E9.

VOLVO VDS-3 since 2001: For Euro III/IV/V Volvo engines + extended oil change intervals of 90,000 km max.

VOLVO CNG: For VOLVO natural gas engines.

MACK EO-M PLUS: The MACK EO-M PLUS specification was introduced in 1999. Use of MACK EO-M Plus oils is obligatory in all MACK engines made in 1999, with oil change intervals of up to 80,000 km or 50,000 miles.

MACK EO-M Plus oils must be multigrade, meet the requirements of API class CH-4, and have passed the following engine tests: Mack T8-E and Mack T-9 under tougher limits, and Cummins M-11, extended to 300 hours.

Mack EO-N: The following oils are only approved for engines which meet 2004 emissions requirements, and older engines with rubber parts, and are not approved for the 2007 model or for later engines with rubber parts.

CUMMINS CES 20076: For Cummins engines requiring an API CH4 oil.

CUMMINS CES 20077: For Cummins engines requiring an API CI4 oil.

Caterpillar ECF-1a: Specification introduced in 2007 to replace the ECF-1 specification. Applies to all 2006 and earlier diesel engines used on the road, series 3500 Caterpillar diesel engines, small commercial engines and to machinery incorporating ACERT technology. These oils must either meet the CH-4 standard, have a sulfated ash content < 1.3% and have passed the CAT 1P test first time, or meet the CH-4 standard, have a sulfated ash content of 1.3% to 1.5% and have passed the CAT 1P test twice.

DQC IV-10: A very high-performance, low-ash oil for diesel engines, providing maximum efficiency with closed engine block ventilation and / or with very high thermal stress.

SCANIA Low Ash: For Euro IV/V engines equipped with DPF.

ADVANTAGES

The “Low SAPS” technology in PRO 300X maintains exhaust gas after-treatment system efficiency, thereby safeguarding emissions compliance as set out by the Euro IV/Euro V standard. The synthetic technology enables extended oil change intervals, which depending on the manufacturers’ recommendations may be as much as:

- 100,000 km: Euro IV/V MAN engines, EGR with PM-Kat,
- up to 120,000 km: Euro IV/V Daimler engines, SCR with DPF and FSS,
- up to 150,000 km: Euro IV/V DAF engines (XF105), SCR with AdBlue and DPF, thereby reducing down time due to maintenance.

USES

The technology used ensures this protection and meets the manufacturers’ oil change interval requirements.

| Characteristics | Standards | Units | Values |
|----------------------|---------------|--------------------|--------|
| Density at 15°C | ASTM D4052 | g/ml | 0.8612 |
| Viscosity at 40°C | ASTM D445 | mm ² /s | 94.4 |
| Viscosity at 100°C | ASTM D445 | mm ² /s | 13.98 |
| Viscosity index | ASTM D2270 | - | 147 |
| Pour point | ASTM D97 | °C | -39 |
| HTHS viscosity | CEC L-36-A-97 | mPa s | 4.07 |
| Flash point | ASTM D92 | °C | 237 |
| TBN | ASTM D2896 | mg KOH/g | 9.85 |
| CCS @ -20°C | ASTM D5293 | mPa.s | 6800 |
| CCS @ - 25°C | ASTM D5293 | mPa.s | 6340 |
| Sulfated ash content | ASTM D874 | % mass | 0.97 |

The characteristics are given purely for information and are consistent with our current production standards. IGOL reserves the right to modify them, in order to pass on technical developments to its customers. Before using this product, you should consult the instructions for use and the environmental impact shown on the technical and safety data sheets. The information given above is based on the current state of our knowledge of the product in question. The product user should take all relevant precautions relating to its use. Under no circumstances may IGOL be held liable for damages resulting from misuse.

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