Rubia Works 4000 10W-40

Diesel Engine Oil

KEY DATA

LOW SAPS PARTICULATE FILTER

D033TOL620
DH-2
PRODUCT MEETING JASO M 355
COMPANY GUARANTEEING THIS PERFORMANCE:
TotalEnergies Lubrifiants

High performance, "Low SAPS" engine oil especially developed for construction, genset, earthmoving, mining and quarries machinery engines.

INTERNATIONAL STANDARDS

- ACEA E7 , E9 , E11
- API CK-4 / CJ-4 / CI-4 Plus / CI-4 / CH-4 / SN
- JASO DH-2

SUITABLE FOR

- IVECO FPT TLS E9
- IVECO FPT TLS CK-4
- ISUZU

Especially recommended in engines of:

- KOMATSU
- HITACHI
- JCB
- KOBELCO

MANUFACTURER APPROVALS

- DEUTZ DQC III-18 LA
- MTU Category 2.1
- DTFR 15C100 (228.31)
- VOLVO VDS-4.5
- MACK EO-S 4.5
- RENAULT RLD-3
- CUMMINS CES 20086
- MAN M 3775

MEETS THE REQUIREMENTS OF

- CATERPILLAR ECF-3/ECF-2/ECF-1a
- DETROIT DIESEL DFS 93K222

APPLICATIONS

Rubia Works 4000 10W-40 is especially suitable for engines used in Off-Road activities (quarries, construction, mining, railroads, road transport, railway traction and power generating units) requesting API CK-4 or CJ-4 level.

Thanks to its numerous approvals, it can be used also in "On-road" truck engines. This lubricant withstands very long working hours under severe conditions and high load, with dust and heat.

Rubia Works 4000 10W-40 is recommended for engines equipped with Exhaust gas after-treatment system meeting EURO Stage V (or US EPA Tier 4F) Standard and, for On-Road, EURO 6, as well as previous standards.
Rubia Works 4000 10W-40 is particularly suitable for American, European and Japanese engines.

Thanks to its specific "Low SAPS" technology (Low content of Sulphated Ash, Phosphorus and Sulphur),
Rubia Works 4000 10W-40 is designed for the latest Diesel engines equipped with post-treatment systems, such as Diesel particulate filters (DPF) or DENOX catalysator.

PERFORMANCES & CUSTOMER BENEFITS

Rubia Works 4000 10W-40 is formulated using high quality synthetic technology base oil together with robust additive formulation that provide enhanced oxidation resistance & lubrication performance.

- Rubia Works 4000 10W-40 exhibits excellent thermal stability ensuring efficient lubrication of hot engine pieces during severe and long working periods.
- Rubia Works 4000 10W-40 has been especially reinforced in viscosity stability under shearing and oxidation resistance (much higher than simple API CK-4), providing the possibility for the end user to reach or to exceed the maximum manufacturer's drain interval recommendation, even under severe working conditions with bad Fuel quality or with Bio-Diesel fuel.
- Furthermore, it's 10W-40 viscosity grade allows the end user to start the engine at very low temperature. The advanced "Low SAPS" formulation of Rubia Works 4000 10W-40 helps prevent the clogging of the Diesel Particulate Filter (DPF) and extends the post-treatment system durability.

CHARACTERISTICS*

PROPERTIES	UNIT	TEST METHOD	RESULT
Grade	-	SAE J300	SAE 10W-40
Density	kg/m^3	ASTM D4052	869
Kinematic viscosity at 40°C	mm²/s	ASTM D445	106
Kinematic viscosity at 100°C	mm²/s	ASTM D445	15.3
Viscosity index	-	ASTM D2270	151
Dynamic viscosity at -25°C	mPa.s	ASTM D5293	6446
Pour point	°C	ASTM D97	-39
Flash point	°C	ASTM D92	234
Total base number	mgKOH/g	ASTM D2896	10
Sulphated ash	% m/m	ASTM D874	1.0
HTHS	-	ASTM D4683	4.1

* The characteristics given above are obtained with a standard tolerance threshold during production and may not be considered specifications.

HEALTH, SAFETY AND THE ENVIRONMENT

Based on the toxicological information available, this product should not cause any adverse health effects, provided it is used for its intended purpose and in accordance with the recommendations laid out in the Safety Data Sheet (SDS).

This can be obtained on request from your local reseller and is available for consultation at https://ms-sds.totalenergies.com. This product should not be used for any purposes other than the ones for which it is intended.

RECOMMENDATIONS FOR USE

Before using the product, the vehicle's maintenance guide should be checked. Oil changes should be carried out in accordance with the manufacturer's recommendations.

The product should not be stored at temperatures over 60°C. It should be kept away from sunlight, intense cold and extreme temperature fluctuations. If possible, the packaging should not be exposed to the elements. Otherwise, the drums should be laid horizontally in order to avoid any contamination from water and to prevent the product's label from rubbing off.

Some variations can be expected under normal production conditions, but these should not affect the product's expected performance irrespective of the site. The information contained in this document is subject to change without notice. Our products can be viewed on our website at www.lubricants.totalenergies.com.