



RUBIA WORKS 4000 FE 10W-30



"Low SAPS" lubricant especially developed for earthmoving, mining and quarries machinery engines.

SPECIFICATIONS ET HOMOLOGATIONS

International specifications ACEA E9/E7 API CK-4/CJ-4/CI-4+/CI-4/CH-4/SN JASO DH-2

Manufacturers' approvals

- ✓ DEUTZ DQC III-18 LA
- ✓ MTU Category 2.1
- ✓ MB-Approval 228.31
- ✓ VOLVÖ VDS-4.5
- ✓ MACK RO 4.5
- ✓ RENAULT VI RLD-3
- ✓ CUMMINS CES 20086
- ✓ DETROIT DIESEL DFS 93K222
- ✓ MAN M3775
- ✓ ISUZU Recommended Lubricant (2020)

Meets the requirements of

✓ CATERPILLAR ECF-3/ECF-2/ECF-1a

Especially recommended in engines of machinery

KOMATSU, HITACHI, JCB, KOBELCO, CASE



APPLICATIONS

TOTAL RUBIA WORKS 4000 FE 10W-30 is especially suitable for **engines** used in **earthmoving activities** (quarries, construction, mining...) requesting API CK-4 or CJ-4 level.

Furthermore, thanks to its numerous approvals, it can be used also in "On-road" truck engines.

This lubricant withstands very long working periods under severe conditions and high load, with dust and heat.

TOTAL RUBIA WORKS 4000 FE 10W-30 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. TOTAL RUBIA WORKS 4000 FE 10W-30 is particularly suitable for American, European and Japanese engines.

Thanks to its specific "**Iow-SAPS**" technology (low content of Sulphated Ash, Phosphorus and Sulphur), TOTAL RUBIA WORKS 4000 FE 10W-30 is designed for the latest Diesel engines equipped with **post-treatment systems**, such as Diesel particulate filters (DPF) or DENOX catalyst.

PERFORMANCES AND CUSTOMER BENEFITS

TOTAL RUBIA WORKS 4000 FE 10W-30 exhibits **excellent thermal stability** ensuring efficient lubrication of hot engine pieces during severe and long working periods.

TOTAL RUBIA WORKS 4000 FE 10W-30 has been especially reinforced in oxidation resistance (much higher than simple API CK4), 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.

The 10W-30 viscosity grade allows engine starting under very low temperature and/or provides substantial Fuel Economy for the end user (up to 2.0 % in certain earthmoving machinery).

Its advanced "low-SAPS" formulation helps prevent the clogging of the Diesel Particulate Filter (DPF) and extends the post-treatment system durability.

PHYSICAL AND CHEMICAL CHARACTERISTICS*

TOTAL RUBIA WORKS 4000 FE 10W-30		Method	Value	
Kinematic Viscosity at 40°C	mm²/s	ASTM D445	82.0	
Kinematic Viscosity at 100°C	mm²/s	ASTM D445	12.2	
Viscosity Index	-	ASTM D2270	145	
Pour Point	°C	ASTM D97	-36	
T.B.N	mgKOH/g	ASTM D2896	10	
Sulphated Ash	% max m/m	ASTM D874	1.0	

^{*} The features mentioned above are average values obtained with some variability in production and do not constitute a specification.

TOTAL LUBRIFIANTS

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