

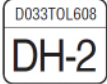


RUBIA WORKS 4000 10W-40



“Low SAPS” lubricant especially developed for *earthmoving, mining and quarries machinery engines*.

SPECIFICATIONS AND APPROVALS

International specifications	ACEA E9/E7	API CK-4/CJ-4/CI-4+/CI-4/CH-4/SN	JASO DH-2
Manufacturers' approvals	<ul style="list-style-type: none"> ✓ DEUTZ DQC III-10 LA ✓ MTU Category 2.1 ✓ MB-Approval 228.31 ✓ VOLVO VDS-4.5 ✓ MACK EO-S 4.5 ✓ RENAULT VI RLD-3 ✓ CUMMINS CES 20086 ✓ DETROIT DIESEL DFS 93K222 	Meets the requirements of <ul style="list-style-type: none"> ✓ CATERPILLAR ECF-3/ECF-2/ECF-1a ✓ IVECO FPT TLS E9 Especially recommended in engines of machinery <ul style="list-style-type: none"> ✓ KOMATSU ✓ ISUZU ✓ HITACHI ✓ JCB ✓ KOBELCO ✓ etc... 	 <small>PRODUCT MEETING JASO M 355 COMPANY GUARANTEEING THIS PERFORMANCE: TOTAL LUBRIFIANTS</small>

APPLICATIONS

TOTAL RUBIA WORKS 4000 10W-40 is especially suitable for **engines** used in Off-Road activities (quarries, construction, mining, railroads...) 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 periods** under severe conditions and high load, with dust and heat.

TOTAL 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.

TOTAL 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), TOTAL 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 AND CUSTOMER BENEFITS

TOTAL RUBIA WORKS 4000 15W-40 exhibits **excellent thermal stability** ensuring efficient lubrication of hot engine pieces during severe and long working periods.

TOTAL RUBIA WORKS 4000 15W-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 TOTAL RUBIA WORKS 4000 10W-40 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 10W-40		Method	Value
Kinematic Viscosity at 40°C	mm ² /s	ASTM D445	106
Kinematic Viscosity at 100°C	mm ² /s	ASTM D445	15.3
Viscosity Index	-	ASTM D2270	151
HTHS	mPa.s	ASTM D4683	4.1
Pour Point	°C	ASTM D97	-36
T.B.N	mgKOH/g	ASTM D2896	11
Sulphated Ash	% max	ASTM D874	1.0

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

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TOTAL RUBIA WORKS 4000 10W-40
Update 06/2019
www.lubricants.total.com



This lubricant does not cause adverse health effects when used in the intended application.
A safety datasheet is accessible on request from your local dealer or on the website www.quickfds.com