

**RUBIA WORKS 4000** 15W-40

## "Low SAPS" lubricant especially developed for earthmoving, mining and guarries 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

- DEUTZ DQC III-10 LA
- MTU Category 2.1
- MB-Approval 228.31
- 1 VOLVO VDS-4.5
- ✓ MACK EO-S 4.5
- ✓ **RENAULT VI RLD-3**
- ~ CUMMINS CES 20086
- 1 DETROIT DIESEL DFS 93K222
- ~ MAN M3775
- 1 ISUZU Recommended Lubricant

### Meets the requirements of

✓ CATERPILLAR ECF-3/ECF-2



#### Especially recommended in engines of machinery

- KOMATSU
- HITACHI
- **KOBELCO**
- etc...

- (2020)

### APPLICATIONS

TOTAL RUBIA WORKS 4000 15W-40 is especially suitable for engines used in earthmoving activities (guarrying, construction, mining, railroads...) 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 15W-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 15W-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 15W-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. The advanced "LOW-SAPS" formulation TOTAL RUBIA WORKS 4000 15W-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 15W-40		Method	Value
Kinematic Viscosity at 40°C	mm²/s	ASTM D445	115
Kinematic Viscosity at 100°C	mm²/s	ASTM D445	15.3
Viscosity Index	-	ASTM D2270	139
Pour Point	°C	ASTM D97	-33
T.B.N	mgKOH/g	ASTM D2896	11
Sulphated Ash	% m/m 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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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.guickfds.com