



## KROSS 20W50 CI-4/SL

20W50 oil is high performance heavy duty diesel engine oil engineered to provide enhanced protection under the full range of pressures and temperatures found in modern engines. Formulated with thoroughly selected high purity base oils and advanced additive package they provide exceptional protection against wear and deposits formation. They are suitable for many heavy-duty diesel engines, non-turbocharged and turbocharged, in on- and off- highway application.

### APPLICATIONS

Wide range of turbocharged and non-turbocharged diesel engines requiring API CF-4 performances and meeting Euro 4 emission standard. Suitable for engines with exhaust after-treatment devices (EGR, SCR). Not applicable for engines fitted with diesel particulate filters (DPF). Heavy duty diesel engines from European, US and Japanese manufacturers of commercial vehicles, buses, trucks. Off-road application, including agricultural, construction, mining equipment.

### FEATURES

**TBN reserve and retention:** High acid neutralizing capacity provides superior corrosion protection throughout the oil drain period in areas where sulfur fuel is high.

**Improved oxidation resistance:** Performance stability during whole drain interval.

**Highly stable viscosity modifiers:** Resistance to breakdown under different operation conditions to extend engine life.

### MEETS OR EXCEEDS

ACEA A3/B4-10 API CH-4 ACEA E7-08 Issue 2 API CI-4/SL CUMMINS CES 20076 JASO DH-1 CUMMINS CES 20077 DEUTZ DQC-III-10 CUMMINS CES 20078 GLOBAL DHD-1 MACK EO-M PLUS CATERPILLAR ECF-1a MACK EO-N PLUS CATERPILLAR ECF-2 MTU Oil Category 2 MB 229.1 RENAULT RLD MB 228.3 RENAULT RLD-2 ALLISON C4 VOLVO VDS-3 MAN M3275-1 API CG-4 DETROIT DIESEL DFS 93K215.

The product has been blended to meet the above performance levels.

### TYPICAL CHARACTERISTICS

Test	Method	Unit	Average Results
Density at 15°C	ASTM D4052	g/ml	0.873
Kinematic viscosity at 40°C	ASTM D445	mm <sup>2</sup> /s	100
Kinematic viscosity at 100°C	ASTM D445	mm <sup>2</sup> /s	14
Viscosity index	ASTM D2270		142
B.N. (HCLO4 method)	ASTM D2896		15.3
Pour point	ASTM D6892	°C	-36
CCS viscosity at -20°C	ASTM D5293		6600
Sulfated Ash	ASTM D874	Mass %	2.24
Flash Point COC	ASTM D92	°C	220

We reserve the right to alter the general characteristics of our products in order to let our customers benefit of the latest technical evolutions.

### SIZES & PACKAGING

