

# LUKOIL AVANTGARDE ULTRA, API CI-4/SL

## Modern diesel engine oils

### APPROVALS

**API** CI-4/SL- licensed (SAE 15W-40)  
**MB-Approval** 228.3 (SAE 15W-40)  
**Volvo** VDS-3 (SAE 15W-40)  
**Cummins** CES 20078 (SAE 15W-40)  
**MAN** M 3275-1 (SAE 15W-40)  
**Mack** EO-N (SAE 15W-40)  
**MTU** Category 2 (SAE 15W-40)  
**Renault** VI RLD-2 (SAE 15W-40)  
**DEUTZ** DQC III-10 (SAE 15W-40)  
**KAMAZ PTC**  
**JSC AVTODIZEL (YaMZ)**  
**JSC "Tutaev motor plant"** (SAE 10W-40, 15W-40)  
**Ferrit s.r.o.** (SAE 10W-40, 15W-40)

### MEETS REQUIREMENTS

**API** CI-4/SL (SAE 5W-40, 10W-30, 10W-40, 20W-50)  
**ACEA** E7  
**Global** DHD-1 (SAE 10W-40)  
**Cummins** CES 20071/2/6/7 (SAE 15W-40)  
**Cummins** CES 20078  
**Caterpillar** ECF-1<sub>a</sub>, ECF-2 (SAE 15W-40)  
**MAN** M 3275-1 (SAE 5W-40, 10W-30, 10W-40)  
**MTU** Category 2 (SAE 5W-40, 10W-30, 10W-40)  
**MB** 228.3 (SAE 5W-40, 10W-30, 10W-40)  
**DEUTZ** DQC III-10 (SAE 5W-40, 10W-40)  
**Volvo** VDS-3 (SAE 5W-40, 10W-40)  
**Mack** EO-M Plus (SAE 5W-40, 10W-40, 15W-40)  
**Renault** VI RLD-2 (SAE 5W-40, 10W-40)

### PRODUCT DESCRIPTION

**LUKOIL AVANTGARDE ULTRA, API CI-4/SL** is a series of multi-grade premium quality oils for heavy-duty diesel engines, including turbocharged, running under extremely severe conditions and with extended drain interval. These oils are intended for use in last-generation diesel engines according to Euro I, II, III and IV (without DPF) emission requirements.

**LUKOIL AVANTGARDE ULTRA, API CI-4/SL** is produced using modern synthetic and highly refined mineral base stocks with involvement of thoroughly balanced high-performance additive package of foreign manufacture.

Semi-synthetic **LUKOIL AVANTGARDE ULTRA, API CI-4/SL** oils of **SAE 5W-40, 10W-30** and **10W-40** viscosity grades are distinct in improved low-temperature properties providing easy cold start-up at subzero temperatures.

#### The product name in an order:

Motor oil LUKOIL AVANTGARDE ULTRA semi-synthetic SAE 5W-40, API CI-4/SL, STO 00044434-026-2013  
Motor oil LUKOIL AVANTGARDE ULTRA semi-synthetic SAE 10W-30, API CI-4/SL, STO 00044434-026-2013  
Motor oil LUKOIL AVANTGARDE ULTRA semi-synthetic SAE 10W-40, API CI-4/SL, STO 00044434-026-2013  
Motor oil LUKOIL AVANTGARDE ULTRA SAE 15W-40, API CI-4/SL, STO 00044434-026-2013  
Motor oil LUKOIL AVANTGARDE ULTRA SAE 20W-50, API CI-4/SL, STO 00044434-026-2013

**LUKOIL AVANTGARDE ULTRA SAE 20W-50, API CI-4/SL** is especially recommended for hot climate conditions.

### APPLICATION

**LUKOIL AVANTGARDE ULTRA, API CI-4/SL** is recommended for use in modern four-stroke diesel engines of heavy vehicles under severe conditions, including vehicles equipped with EGR and SCR NO<sub>x</sub> reduction systems. Additionally the oils could be used when API CH-4 or CG-4 service category is required.

**LUKOIL AVANTGARDE ULTRA, API CI-4/SL** is suitable for engines without particulate filters (DPF) and for some engines with EGR and SCR.

**LUKOIL AVANTGARDE ULTRA, API CI-4/SL** suites for high performance diesel and gasoline engines with direct-injection according to OEM recommendation making it perfect for mixed fleet.

## TYPICAL TEST DATA

PROPERTY	Test methods	LUKOIL AVANTGARDE ULTRA, API CI-4/SL				
		5W-40	10W-30	10W-40	15W-40	20W-50
Density at 15°C, kg/m <sup>3</sup>	GOST R 51069 / ASTM D4052 / ASTM D1298	858	876	873	887	894
Kinematic viscosity at 100 °C, mm <sup>2</sup> /s	GOST 33 / ASTM D445 / GOST R 53708	14.2	11.4	14.3	14.9	20.43
Viscosity Index	GOST 25371 / ASTM D2270	176	155	162	134	137
Cold Cranking Viscosity (CCS), mPa·s	ASTM D5293 / GOST R 52559	5,196 (at -30 °C)	5,100 (at -25 °C)	5,375 (at -25 °C)	6,820 (at -20 °C)	5,650 (at -15 °C)
Borderline pumping viscosity (MRV), mPa·s	ASTM D4684 / GOST R 52257	34,467 (at -35 °C)	19,841 (at -30 °C)	29,207 (at -30 °C)	34,500 (at -25 °C)	21,853 (at -20 °C)
Total Base Number, mg KOH/1 g oil	GOST 11362	8.5	8.5	8.5	8.5	8.5
Total Base Number, mg KOH/1 g oil	GOST 30050 / ASTM D2896	10.8	10.8	10.8	10.8	10.8
Sulphated ash, %	GOST 12417 / ASTM D874	1.4	1.4	1.4	1.4	1.4
Noack evaporation loss, %	ASTM D5800	12.4	14.9	13.2	10.4	9.1
Flash Point, COC, °C	GOST 4333 / ASTM D92	220	212	216	232	231
Pour Point, °C	GOST 20287 B	-40	-38	-35	-30	-25

The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved by OOO "LLK-International".