

Date: 25.09.2014

**TECHNICAL SHEET  
ENGINE OILS**
**LUKOIL GENESIS ADVANCED SAE 5W-40, API SN;  
LUKOIL GENESIS ADVANCED SAE 10W-40, API SN**

- Synthetic multigrade engine oils LUKOIL GENESIS ADVANCED SAE 5W-40, API SN and LUKOIL GENESIS ADVANCED SAE 10W-40, API SN are mainly obtained from Group III base oils and high performance additives, which provide extended service life, engine cold start, reliable protection against deposits, wear and corrosion in severe conditions of urban cycle.
- These oils meet the requirements of ACEA A3/B4 specifications, being designed for use in high performance gasoline and direct-injection diesel engines (without particulate filter) of modern passenger cars and light commercial vehicles, but also for all the engines requesting ACEA A3/B3 specification.
- Performance level/Meets the following requirements: API SN; ACEA A3/B4; ACEA A3/B3; MB 229.3; VW 502 00 / 505 00
- Quality conditions according to technical specification ST-78/2014:

Item No.	CHARACTERISTICS	ADMISSIBILITY CONDITIONS		TEST METHOD
		LUKOIL GENESIS ADVANCED SAE 5W-40, API SN	LUKOIL GENESIS ADVANCED SAE 10W-40, API SN	
1	Kinematic viscosity at 100°C, mm <sup>2</sup> s <sup>-1</sup> (cSt)	12.5...<16.3		SR EN ISO 3104/AC ASTM D 445 ASTM D 7042
2	Viscosity index, min.	150		SR ISO 2909 ASTM D 2270 ASTM D 7042
3	Base number, mg KOH/g, min.	10		SR ISO 3771 ASTM D 2896
4	Flash point, open cup, °C, min.	200		SR EN ISO 2592 ASTM D 92
5	* Apparent (dynamic) viscosity, determined using the Cold Cranking Simulator (CCS) - at -30°C, cP, max. - at -25°C, cP, max.	6600 -	- 7000	ASTM D 5293
6	* Apparent (dynamic) viscosity, determined using a Mini-Rotary Viscometer (MRV) - at -35°C, cP, max. - at -30°C, cP, max.	60000 -	- 60000	ASTM D 4684
7	*Sulphated ash, %	1.0 ... 1.5		ASTM D 874
8	Water content, %	Nil		SR 13484 ASTM D 95
9	*Substances insoluble in organic solvents, %, max.	0.01		STAS 33
10	Pour point, °C, max.	-40	-37	SR 13552 ASTM D 97
11	*Noack volatility, %, max.	12		STAS 8465 ASTM D 5800
12	*Active element content: Calcium, %	To be reported		STAS 8428
13	Zinc, %	To be reported		STAS 7717
14	Density at 20°C, Kg/m <sup>3</sup>	To be reported		SR EN ISO 3675/C91 ASTM D 1298 ASTM D 7042
15	*Phosphorus content, %	0.08 ... 0.11		STAS 7330
16	*Sulphur content, %, max.	0.5		SR EN ISO 8754
17	Foaming properties, ml (tendency – stability), max. - at 24 °C - at 93.5 °C - at 24°C, after determination at 93.5°C	10 – 0 20 – 0 10 – 0		SR ISO 6247+C1 ASTM D 892
18	* High temperature, High Shear (HTHS) viscosity, mPa.s at 150°C, min.	3.5		ASTM D 4741 (CEC-L-36-A-90)

\* This characteristic is warranted by means of the manufacturing technology / is determined according to the normative document in force.

- Accuracy evaluation of the test methods from this technical sheet should meet the requirements of Standard SR EN ISO 4259:2007 "Petroleum products – determining and applying the accuracy values regarding the test methods".
- Samples shall be taken in accordance with SR EN ISO 3170:2004/C91:2005 "Liquid petroleum products. Manual sampling".
- Packaging, marking, storage, transport and handling are performed according to the regulations in force (decisions, regulations, etc. specified in the product safety data sheet) and to LUKOIL LUBRICANTS EAST EUROPE S.R.L.'s instructions/internal procedures.
- For details, see the Safety Data Sheet (SDS).
- Storage life is of 5 years from the manufacture date.