

**“TATNEFT ULTRA-OPTIMA” SAE 10W-40 API SL/CF
STO 54409843-027-2009**

Date of manufacture: 21.08.2016

Date of testing: 25.09.2016

Place of sampling: E-185

QUALITY SPECIFICATIONS						
No	Indexes of quality	Unit	Value for grade	Normative Requirements	Actual values	Test Method
1	Kinematic Viscosity at 100°C	mm ² /s	13,5 -16,3	-	14,0	GOST 33
2	Viscosity Index		min 120	-	155	GOST 25371
3	Dynamic Viscosity, at minus 25°C	cP	max 7000	-	guaranteed	ASTM D 5293
4	Dynamic Viscosity, at minus 30°C	cP	max 60000	-	guaranteed	ASTM D 4684
5	Evaporation Loss (by Noack)	wt %	15	-	11	ASTM D 5800
6	Total Alkalinity	mg KOH/gr	min 7,0	-	9,7	GOST 11362 and p.5.2 of TU
7	Sulfated ash	%	max 1,5	-	1,2	GOST 12417
8	Mechanical impurities content	%	max 0,015	max 0,03	0,01	GOST 6370 and p.5.3 of TU
9	Water Content		traces	-	traces	GOST 2477
10	Pour Point	°C	not above minus 35	-	minus 48	GOST 20287 (method B)
11	Flash Point, COC	°C	min 210	min 135	232	GOST 4333
12	Copper Strip Test at 100 °C made within 3 hrs on copper plates M1 or M1k, (GOST 859)	points	max 1B	-	endure 1A	GOST 2917
13	Foaming propensity: at 24 °C at 94 °C at 24 °C after testing at 94°C	sm ³	max 10 max 50 max 10	-	max 5 max 5 max 5	GOST 23652, p.5.5 or ASTM D 892
14	Active elements content: calcium zinc	wt %	Not rated. To be determined.	-	0,29 0,11	GOST 13538
15	Density at 20°C	kg/m ³	Not rated. To be determined.	-	867	GOST 3900 or ASTM D 4052
16	Self-ignition point	°C	-	min 165	382	GOST 12.1.044, p.p.2.1, 4.8