

Puma Energy Baltics AS
Roseni 13
10111 Tallinn
Estonia



Report No.: 10501/00021774-01/2026
Batch No.: AT-388-2026
Report date: 29-Jun-2026
Object: Shoretank 17
Product: AVGAS Grade 100LL
Location: Estonia, Puma Energy Baltics AS - Paldiski Terminal

AVGAS 100LL Refinery Certificate of Quality

Sample No.: 19614970
Sample drawn: 21-06-26 11:30 V.Malkin
Sample received: 21-06-26
Lot size: 3,135.121 m³ at 15°C / 2,251.017 mt vac

	Property	Unit	Method	Requirements	Result
COMBUSTION					
1	Net Heat of Combustion (Specific Energy)	MJ/kg	ASTM D3338	Min 43.500	43.587
	Octane Rating				
	Knock value, lean mixture:				
2	Motor Method Octane Number		ASTM D2700	Min 99.6	101.9
3	Aviation Lean Rating		ASTM D2700	Min 100.0	106.15
	Knock value, rich mixture:				
4	Performance Number*		ASTM D909	Min 130.0	137.7
COMPOSITION					
5	Sulfur	mass%	ASTM D5453	Max 0.05	0.0002
	Tetraethyl Lead:				
6	TEL	mL/L	IP 270	Min 0.27 Max 0.53	0.399
7	Pb	g/L	IP 270	Min 0.28 Max 0.56	0.422
8	Antiknock compound (ethyl fluid TEL-B)	gPb/L	Calculated	Min 0.28 Max 0.56	0.416
9	Color		ASTM D2392	Blue	Acceptable
10	Appearance		Visual	Clear, bright, visually free from solid matter and undissolved water at ambient temperature	Clear and Bright
11	Color		Visual		Blue
12	Colour Lovibond		IP 569	Min 1.7 Max 3.5	2.4B
13	Dye content: Blue dye (OSC AV Blue)	mg/L	Calculated	Max 2.7	0.96
VOLATILITY					
14	Vapour Pressure, 38°C	kPa	ASTM D5191	Min 38.0 Max 49.0	46.9
15	Density at 15°C	kg/m ³	ASTM D4052		718.0
16	Distillation:				
	Initial Boiling Point	°C	ASTM D86		33.8
	Fuel Evaporated				
	10 volume % at	°C	ASTM D86	Max 75	66.1
	40 volume % at	°C	ASTM D86	Min 75	98.2
	50 volume % at	°C	ASTM D86	Max 105	101.8
	90 volume % at	°C	ASTM D86	Max 135	108.7
	Final Boiling Point	°C	ASTM D86	Max 170	132.8
	Sum of 10% + 50% Evaporated Temperatures	°C	ASTM D86	Min 135	167.8
	Recovery	volume%	ASTM D86	Min 97	97.6
16	Residue	volume%	ASTM D86	Max 1.5	1.2
	Loss	volume%	ASTM D86	Max 1.5	1.2
FLUIDITY					
17	Freezing Point	°C	ASTM D2386	Max -58	< -58
CORROSION					
18	Copper Strip, 2h at 100°C		ASTM D130	Max 1	1a
CONTAMINANTS					
	Oxidation Stability (16 hours aging)				
19	Potential Gum	mg/100mL	ASTM D873	Max 6.0	< 1
20	Lead Precipitate	mg/100mL	ASTM D873	Max 2.0	< 1
21	Existent Gum	mg/100mL	ASTM D381	Max 3.0	< 1.0
22	Antioxidant (RDE/A/609)	mg/L	Calculated	Max 24.0	10.08
	Water Reaction:				
23	Volume Change	mL	ASTM D1094	Max ±2	< 0.5
OTHERS					
24	Electrical Conductivity**	pS/m	ASTM D2624		1
25	Acidity		ASTM D1093	Neutral	Neutral

Precision parameters apply in the evaluation of the test results specified above. Please also refer to ASTM D3244 (except for analysis of RFG), IP 367 and appendix E of IP standard methods for analysis and testing with respect to the utilization of test data to determine conformance with specification.

This report is issued in accordance with the General Terms and Conditions of Saybolt Estonia and the recipient is deemed to have full knowledge thereof.

It is certified that the samples have been tested using the Test Methods stated, and that the Batch represented by the samples, conforms with DEF STAN 91-090 Issue 7 and/or ASTM D910-26 Requirements. Handling in compliance with EI JIG 1530 second edition.

(*) Analysis results are submitted by a third party laboratory. Saybolt was not present whilst the analysis were carried out, and has signed for receipt only with no liability accepted.

(**) Static Dissipator Additive not added during this production process.

Additives information: Antioxidant AO87 (RDE/A/609) (Batch number: 1000004114; OSC AV Blue (Lot nr 20581); TEL-B (Lot number: ILS0074251)TEL-B (Lot number: 10194/95).

Analysis results approved by:

Tiit Pikk
Account Manager
Saybolt Eesti AS

This Batch has been manufactured at Puma Energy Baltics - Paldiski Terminal premises
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