



ISO/IEC 17025:2017

Jordan Petroleum Refinery CO. LTD
Laboratories & Quality Control Department

**Title: Specification for Jet A-1¹****QS-PL 109**

S.N	Property	Test Method (s)	Control limits
APPEARANCE			
1	Visual appearance	ASTM D4176 Procedure 1	Clear and Bright ²
2	Saybolt Colour	ASTM D156	Report
3	Particulate Contamination	mg/L	ASTM D5452
Or	Particulate, cumulative channel particle counts/ml	IP 565	(Channel Counts) ISO4406
4	Individual channel counts & ISO Code		Classes
4.1	≥ 4 µm		Report
4.2	≥ 6 µm		Report
4.3	≥ 14 µm		Report
4.4	≥ 21 µm		Report
4.5	≥ 25 µm		Report
4.6	≥ 30 µm		Report
COMPOSITION			
5	Total Acidity	mg KOH/g	ASTM D3242
6	Aromatics	Volume %	ASTM D1319
7	Sulfur, Total	Mass %	ASTM D4294
8	Sulfur, Mercaptan	Mass %	ASTM D3227
Or	Doctor Test	ASTM D4952	Negative
9	Blending Components at point of manufacture		
9.1	Non Hydroprocessed Components	Volume %	Report
9.2	Severely Hydroprocessed Components	Volume %	Report
9.3	Synthetic Components	Volume %	Report
VOLATILITY			
10	Distillation: *	ASTM D86 - Automated	
10.1	Initial Boiling Point	°C	Report
10.2	10% Recovery	°C	Max. 205.0
10.3	50% Recovery	°C	Report
10.4	90% Recovery	°C	Report
10.5	End Point	°C	Max. 300.0
10.6	Residue	Volume %	Max. 1.5
10.7	Loss	Volume %	Max. 1.5
11	Flash Point *	°C	ASTM D56
12	Density at 15 °C *	Kg/m ³	ASTM D4052
FLUIDITY			
13	Freezing Point *	°C	ASTM D7153
14	Viscosity at - 20 °C *	mm ² /s	ASTM D445
COMBUSTION			
15	Specific Energy	MJ/Kg	ASTM D3338
16	Smoke Point	mm	ASTM D1322
Or	Smoke Point	mm	ASTM D1322
17	And Naphthalene	Volume %	ASTM D1840



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Test-116

Title: Specification for Jet A–1 ¹					QS-PL 109
S.N	Property		Test Method (s)	Control limits	
<u>CORROSION</u>					
18	Corrosion, Copper strip (2 h. at 100 °C)		Class.	ASTM D130	Max. 1
<u>STABILITY</u>					
19	Thermal Stability, JFTOT			ASTM D3241	
19.1	Test Temperature Tube Rating		°C		min. 260
19.2	Pressure Differential		mmHg		Max. 25
19.3	Visual Tube Rating, VTR				< 3
<u>CONTAMINANTS</u>					
20	Existent Gum		mg/100 ml	ASTM D381	Max. 7
<u>WATER SEPARATION CHARACTERISTICS</u>					
21	Microseparometer (MSEP)		Rating	ASTM D3948	
21.1	Fuel with Static Dissipator Additive				Min. 70
21.2	Or Fuel without Static Dissipator Additive				Min. 85
<u>CONDUCTIVITY</u>					
22	Electrical Conductivity at Fuel with SDA	°C	pS/m	ASTM D2624	50 - 600
<u>Incidental Materials</u>					
23	Fatty acid methyl ester (FAME)		mg/Kg	IP 599	Max. 50

S.N	Additives		Qualification Reference	Control Limits
24	Antioxidants	mg/L	RDE/A/609	Max. 24
25	Static dissipater, First doping	mg/L	RDE/A/621	Max. 3.0
26	Other (MDA, FSII, LIA)	mg/L	-	-

¹ This Specification conforms with DEF STAN 91-091, issue 18, Dated 28th December, 2024 and AFQRJOS Checklist issue 36, Dated 21th February, 2025.

² Clear, bright and visually free from solid matter and undissolved water at ambient fuel temperature.

* Accredited test by JAS-AU.