

**INTERNATIONAL SPECIFICATIONS OF PETROLEUM PRODUCTS**

**JET-A 1**

<b>ASTM method</b>	<b>Property</b>		<b>Limits</b>
	Visual	Appearance	Clear, bright and visually free from solid matter and undissolved water at ambient temperature
D-156		Color	Report
D-5452		Particulate contamination mg/L	Max 1.0
D-3242	Composition	Total acidity mg KOH/g	Max 0.015
D-1319		AR %vol	Max 25.0
D-4294		Total Sulfur, mass%	Max 0.30
IP-342		Sulfur Mercaptan	Max 0.0030
D-4952*		Doctor test	Negative
	Incidental Materials		
D-4052	Volatility	Density at 15°C kg/m <sup>3</sup>	Min 775.0 Max 840.0
IP-170		Abel Flash point °C	Min 38.0
D-86	Fuel recovered	IBP °C	Report
		10% vol at °C	Max 205
		50% vol at °C	Report
		90% vol at °C	Report
		end point	Max 300
		Residue % vol	Max 1.5
		Loss% vol at °C	Max 1.5
D-2386	Fluidity	Freezing pt °C	Max -47.0
D-445		Viscosity at -20 °C, cSt	Max 8.000
D-3338	Combustion	Specific Energy, net MJ/kg	Min 42.80
D-1322		Smoke point mm	Min 18.0
D-1840		Naphtalenes, %vol (Procedure B)	Max 3.00
D-130	Corrosion	Cu strip, 100°C, 2hr	Max 1
D-3241	Stability	Thermal stability, JFTOT, control temp at °C	Min 260
		Filter pressure difference mmHg.	Max 25
		Tube deposit rating	Max Less than 3, no Peacock or abnormal color deposits
D-381	Contaminants	Existent gum mg/100mL	Max 7
D-3948		Microseparatometer (MSEP), ratings: - With Static Dissipator Additive - Without Static Dissipator additive	Min 70 Min 85

D-2624**	Conductivity	Electrical conductivity pS/m at Temperature °C	Min 50 Max 600
D-5001	Lubricity	BOCLE wear scar diameter mm	Max 0.85
	Additive Refinery certificate	-Antioxidant, mg/l Metal Deactivator, mg/l -Static Dissipator, mg/l	-

In compliance with the Joint Fuelling System Check List for Jet-A1, Issue 31-Nov 2019,  
for the above conducted tests.

\*Note 7 of AFQRJOS issue 31-Nov 2019. The Doctor test is an alternative to the Sulphur Mercaptan test content.

In the event of conflict between the sulphur Mercaptan and Doctor test results, the Sulphur Mercaptan result shall prevail.

\*\* According to note 20, Conductivity should be measured after release to shore tank.

Note 9 . Table Incidental Materials

ASTM D-7797		Fame mg/kg	Max 50
ASTM D-7872***		DRA µg/l	Max 72

\*\*\* DRA is not an approved additive for Jet Fuel.