

St1 Sverige AB

Jet A1



Produktdata

Jet A1 uppfyller utgåva 28 av AVIATION FUEL QUALITY REQUIREMENTS FOR JOINTLY OPERATED SYSTEMS (AFQRJOS) som i sin tur omfattar:
 (a) British Ministry of Defence Standard DEF STAN 91-91/Issue 7 Amendment 3, 02 February 2015 for Turbine Fuel, Kerosene Type, Jet A-1, NATO Code F-35, Joint Service Designation: AVTUR.
 (b) ASTM Standard Specification D 1655-15 for Aviation Turbine Fuels "Jet A-1".
 I tabellen nedan finns ett utdrag av kvalitetskraven enligt AFQRJOS.
 Mer information om AFQRJOS finns på <http://www.jigonline.com/afqrjos/>

Product data sheet

Jet A1 meets the issue 28 of AVIATION FUEL QUALITY REQUIREMENTS FOR JOINTLY OPERATED SYSTEMS (AFQRJOS) which embodies the requirements :
 (a) British Ministry of Defence Standard DEF STAN 91-91/Issue 7 Amendment 3, 02 February 2015 for Turbine Fuel, Kerosene Type, Jet A-1, NATO Code F-35, Joint Service Designation: AVTUR.
 (b) ASTM Standard Specification D 1655-15 for Aviation Turbine Fuels "Jet A-1"
 The tabel below is an extract of the quality requirements according to AFQRJOS. More information about AFQRJOS is found on: <http://www.jigonline.com/afqrjos/>

PROPERTY	LIMITS	TEST METHOD	
		IP	ASTM
APPEARANCE			
Visual appearance	Clear, bright and visually free from solid matter and undissolved water at ambient fuel temperature		
Colour	Report		D 156 or D 6045
Particulate contamination mg/L	max 1.0	423	D 5452
Particulate, cumulative channel particle counts, ISO Code & Individual Channel Counts		564 or 565 or 577	
≥4 µm(c)	Report		
≥6 µm(c)	Report		
≥14 µm(c)	Report		
≥21 µm(c)	Report		
≥25 µm(c)	Report		
≥30 µm(c)	Report		
COMPOSITION			
Total Acidity, mg KOH/g	max 0.015	354	D 3242
Aromatics, % v/v	max 25.0	156	D 1319
OR Total Aromatics, % v/v	max 26.5	436	D 6379
Sulphur, Total, % m/m	max 0.30	336	D 1266 or D 2622
Sulphur, Mercaptan, % m/m	max 0.0030	342	D 3227
OR Doctor Test	Negative	30	D 4952
Refinery Components at point of manufacture:			
Non Hydroprocessed Components, %v/v	Report (incl. 'nil' or '100%')		
Mildly Hydroprocessed Components, % v/v	Report (incl. 'nil' or '100%')		
Severely Hydroprocessed Components, % v/v	Report (incl. 'nil' or '100%')		
Synthetic Components, %v/v	Report (incl. 'nil' or '50%')		
INCIDENTAL MATERIALS			
Fatty Acid Methyl Ester (FAME), mg/kg	max 50	585 583 590 599	ASTM D7797
VOLATILITY			
Distillation			
Initial Boiling Point, °C	Report	123	D 86
Fuel Recovered			
10% v/v at °C max	205.0		
50% v/v at °C	Report		
90% v/v at °C	Report		
End Point, °C	max 300.0		
Residue, % v/v	max 1.5		
Loss, % v/v	max 1.5		
Flash Point, °C	min 38.0	170 or 523	D 56 or D 3828
Density at 15°C, kg/m³	775.0 min to 840.0 max	160 or 365	D 1298 or D 4052



Jet A1

PROPERTY		LIMITS	TEST METHOD	
			IP	ASTM
FLUIDITY				
Freezing Point, °C	max	- 47.0	16 or 435 or 528 or 529	D 2386 or D 5972 or D 7153 or D 7154
Viscosity at -20°C, mm2/s(cSt)	max	8.000	71	D 445
COMBUSTION				
Specific Energy, net, MJ/kg	min	42.80	12 or 355	D 3338 or D 4809
Smoke Point, mm	min	25.0	598	D 1322
OR				
Smoke Point, mm	min	18.0	598	D 1322
AND Naphthalenes, % vol.	max	3.00		D 1840
CORROSION				
Corrosion, Copper strip, classification (2 hours +/- 5 min. at 100 °C +/- 1°C)	max	1	154	D 130
STABILITY				
Thermal Stability (JFTOT)			323	D 3241
Control temperature, °C	min	260		
Filter Pressure Differential, mm Hg	max	25		
Tube Deposit Rating (Visual)		Less than 3, no 'Peacock' or 'Abnormal' colour deposits		
CONTAMINANTS				
Existent Gum, mg/100ml	max	7	540	D 381
Microseparator (MSEP), rating				D 3948
Fuel with Static Dissipator Additive	min	70		
OR				
Fuel without Static Dissipator Additive	min	85		
CONDUCTIVITY				
Electrical Conductivity, pS/m		50 min to 600 max	274	D 2624
LUBRICITY				
BOCLE wear scar diameter, mm	max	0.85		D 5001
ADDITIVES (Names and approval code from DEF- STAN 91-91/7 Amd 3 are quoted on quality certificates).				
Antioxidant , mg/l		17.0 min to 24.0 max		
in hydroprocessed & synthetic fuels (Mandatory) in non-hydroprocessed fuels (Optional)	max	24.0		
Metal Deactivator , mg/l (Optional) *	max			
First Doping		2.0		
Cumulative concentration after field re-doping		5.7		
Static Dissipator , mg/l *	max			
First Doping		3.0		
Cumulative concentration after field re-doping		5.0		
Antioxidants are mandatory in hydroprocessed fuels and synthetic fuels and shall be added immediately after hydroprocessing or synthesising and prior to the product or component being passed into storage in order to prevent peroxidation and gum formation after manufacture.			The types and concentrations of all additives used shall be shown on the original Certificates of Quality and on all other quality documents when they are added downstream of the point of manufacture. When additives are diluted (with hydrocarbon solvent only) to improve handling properties prior to addition, it is the concentration of active ingredient that shall be reported. See Annex A of DEF STAN 91-91/7 Amd 3 for detailed advice.	
Fuel System Icing Inhibitor is not permitted unless agreed by all the participants in a joint system.				
Corrosion Inhibitor/Lubricity Improver (CI/LI) additive may be added to the fuel				
			* When the original dosage of additives is unknown, it has to be assumed that first doping was applied at maximum dose rate.	