

QUALITY SPECIFICATION FOR AVIATION KEROSENE JETA1 FUEL:

1	Appearance			
1.1	Visual Appearance	Clear & Bright, free from solid matter & undissolved water at ambient temperature		Clear & Bright
1.2	Color	Report	ASTM D 156 or ASTM D 6054	25
1.3	Particulate Contamination, at point of manufacture, mg/l	1.0 Max.	IP 423 - ASTM D 5425	0.80
1.4	Particulate, at point of manufacture			
1.4.1	< 4 µm(c)	Report	IP 564 or IP 565	2500
1.4.2	< 6 µm(c)	Report		950
1.4.3	< 14 µm(c)	Report		99
1.4.4	< 21 µm(c)	Report		22
1.4.5	< 25 µm(c)	Report		15
1.4.6	< 30 µm(c)	Report		10
2	Composition			
2.1	Total Acidity, mg KOH/gm	0.015 Max.	ASTM D 3242	0.009
2.2	Aromatic Hydrocarbon Types			
2.2.1	Aromatics % v/v	25 Max.	IP 156 - ASTM D 1319	18.5
or				
2.2.2	Total Aromatics % v/v	26.5 Max.	IP 346 - ASTM D 6379	18.5
2.3	Sulphur, Total % m/m	0.3 Max.	ASTM D 4294	0.25
2.4 or 2.5	Sulphur Mercaptan % m/m	0.003 Max.	ASTM D 3227	0.0020
2.6	Refining Component, at the point of manufacture			
2.6.1	1. Hydro processed component, % v/v	Report		
2.6.2	2. Severely Hydro processed component, % v/v	Report		
3	Volatility			
3.1	Distillation - 1HP °C	-	ASTM D 86	155
	Fuel recovered 10% by volume at °C	205 Max.	-	171
	Fuel recovered 50% by volume at °C	Report	-	195
	Fuel recovered 90% by volume at °C	Report	-	195
	Final boiling point °C	300 Max.	-	254
	Residue % volume	1.5 Max.	-	1.0
	Loss % volume	1.5 Max.	-	1.0
3.2	Flashpoint °C	38 Min.	IP 170	42
3.3	Density at 15 °C kg m ³	Min. 775.0 Max. 840.0	IP 365 - ASTM D 4052	799
4	Fluidity			
4.1	Freezing point, °C	Minus 47 Max.	IP 16 - ASTM D 2386	Minus 52
4.2	Kin. Viscosity at minus 20 °C, mm ²	8.00 Max.	IP 71 - ASTM D 445	4.10
5	Combustion			
5.1	Smoke Point, mm or	25 Min.	ASTM D 1322 - IP 57	24
	Smoke Point	19 Min.	ASTM D 1322 - IP 57	
	And Napthalene, % vol.	3 Max.	ASTM 1840	2.3
5.2	Specific Energy MJ/kg, Min	42.8	Annex C	43.27
6	Corrosion			
6.1	Cu Strip for 2 hours at 100 °C	Not worse than No. 1	ASTM D 130	No. 1
7	Thermal Stability, JETOT			
7.1	Thermal Stability, JETOT		IP 323 - ASTM D 3241	
	Test Temperature, °C	Min 26.0		
7.2	Tubercating, visual	Less than 3 (no peacock) or abnormal colour		Zero, no peacock