

<b>Specification: Aviation Turbine Fuel (Jet A1)</b>				
S/#	Test Property	Limit / Range	Test Method	Typical Result
<b>1</b>	<b>Appearance</b>			
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	0.8
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
<b>2</b>	<b>Composition</b>			
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 436 /ASTM D 6379	18.5
2.3	Sulphur, Total % m/m	0.3 Max.	ASTM D 4294	0.25
	Sulphur Mercaptan % m/m	0.003 Max.	ASTM D 3227	0.002
2.4	Doctor Test	Doctor negative	IP 30	
2.5	<b>Refining Component, at the Point of manufacture</b>			
2.5.1	1. Hydro processed component, % v/v	Report		
2.5.2	2. Severely Hydro processed component, % v/v	Report		
<b>3</b>	<b>Volatility</b>			
3.1	Distillation – IBP oC,	-	ASTM D 86	155
	Fuel recovered 10% by volume at oC	205 Max.	-	171
	Fuel recovered 50% by volume at oC	Report	-	195
	Fuel recovered 90% by volume at oC	Report	-	195
	Final boiling point oC	300 Max.	-	254
	Residue % volume	1.5 Max.	-	1
	Loss % volume	1.5 Max.	-	1
3.2	Flash point oC	38 min	IP 170	42
3.3	Density @ 15 oC kg/m3	Min 775.0 Max.840.0	IP 365/ ASTM D 4052	799
<b>4</b>	<b>Fluidity</b>			
4.1	Freezing point, oC	Minus 47 Max.	IP16/ ASTM D 2386	Minus 52
4.2	Kin. Viscosity at minus 20 oC, mm2/s	8.00 Max.	IP 71/ ASTM D 445	4.1
<b>5</b>	<b>Combustion</b>			
5.1	Smoke Point, mm or	25 Min	ASTM D 1322/IP 57	24
	Smoke Point	19 Min	ASTM D 1322/IP 57	
	And Naphtalene, % vol.	3 Max.	ASTM 1840	2.3
5.2	Specific Energy MJ/kg, Min	42.8	Annex C	43.27
<b>6</b>	<b>Corrosion</b>			
6.1	Cu strip for 2 hours @ 100 oC	Not worse than No. 1	ASTM D 130	No.1
<b>7</b>	<b>Thermal Stability, JFTOT</b>			
7.1	Thermal Stability, JFTOT		IP 323 / ASTM D 3241	
	Test Temperature, oC	Min 260		
7.2	Tube rating, visual	Less than 3 (no peacock) or abnormal colour deposit		Zero, no peacock
7.3	Pressure Difference, mmHg	25 Max.		
<b>8</b>	<b>Contaminants</b>			
8.1.1	Existent gum, mg/100ml	7 Max.	IP 131 / ASTM D 381	2.1
Or				
8.1.2	Existent gum with Air, , mg/100ml	7 Max..	IP 131 / ASTM D 381	2.1
9	Water Reaction Characteristics	1b Max.	ASTM D 1094 (Method A)	1b
9.1	Micro separator rating at point of manufacture		ASTM D 3948	95
9.1.1	MSEP without SDA or	85 Min.		90
9.1.2	MSEP without SDA	70 Min.		90
<b>10</b>	<b>Conductivity</b>			
10.1	Electrical Conductivity PS/m	50 Min. 600 Max.	IP 274 / ASTM D 2624	75 @ 30 oC
<b>11</b>	<b>Lubricity</b>			
11.1	Wear Scar Diameter, mm	0.85 Max..	ASTM D 5001	0.63