

## SPECIFICATION OF JET FUEL (JPA1)

COMPONENT	UNIT Min/Max	Test Methods ASTM / IP / GOST
<b>COMPOSITION</b>		
Appearance Colour, Saybolt Acidity, Total (mg KOH/g) Aromatics (vol %) Sulphur, Total (wt %)	C&B (1) Report (2) Max. 0.10 Max. 25.0 Max. 0.25,	Visual D156, D6045 D3242, IP 354 D1319, IP 156, GOST R 52063 D1266, D1552, D2622, D4294, D5453, IP107, IP 243, IP 336, IP 373, IP 447, GOST R 51947, GOST R 51859
Sulphur, Mercaptan (wt %) OR Doctor Test	Max. 0.0030 (3) Negative (3)	D3227, IP 342, GOST R 52030 D4952, IP 30
<b>VOLATILITY</b>		
Distillation Temperature: 10% Recovery (°C) 50% Recovery (°C) 90% Recovery (°C) Final BP (°C) Distillation Residue (vol %) Distillation Loss (vol %) Flash Point (°C) Density @ 15°C (kg/m <sup>3</sup> )	Max. 205.0 Report Report Max. 300.0 Max. 1.5 Max. 1.5 Min. 38.0 775.0 - 840.0	D86, IP 123      D56 (4), D3828, IP170 D1298, D4052, IP 160, IP 365, GOST R 51069
<b>FLUIDITY</b>		
Freezing Point (°C) Viscosity @ -20°C (cSt)	Max. -47.0 (5) Max. 8	D2386, D5972, D 7153, IP 16, IP 435, IP 529 D445, IP 71
<b>COMBUSTION</b>		
Net Heat of Combustion (MJ/kg) Smoke Point (mm) OR Smoke Point (mm) AND Naphthalenes (vol %)	Min. 42.80 (6) Min. 25 Min. 19 Max. 3	D3338, D4529, D4809, IP 12, IP 355 D1322, IP 57 D1322, IP57 D1840
<b>CORROSION</b>		
Copper Strip (2h @ 100°C)	Max. No.1	D130, IP 154
<b>THERMAL STABILITY</b>		
JFTOT 6P @ 260°C (mm Hg) Tube Rating (Visual)	Max. 25 Max. <3 (7)	D3241, IP 123
<b>CONTAMINANTS</b>		
Existent Gum Water Reaction Interface Rating MSEP Rating Fuel without SDA Fuel with SDA Particulates (mg/dm <sup>3</sup> )	Max. 7 (8) Max. 1b Min. 85 Min. 70 Max. 1.0 (2)	D381, IP 131 D1094   D5452, IP423
<b>OTHER</b>		
Conductivity (pS/m) Without SDA BOCLE Wear Scar Diameter (mm)	50-600 Max. 10 Max. 0.85 (9)	D2624, IP 274, GOST 25950  D5001
<b>ADDITIVES</b>		
Antioxidant Static Dissipator Lubricity Improver	Optional (24 mg/L max) Optional (10) Optional (11)	

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ITEM	MORE INFORMATION OF SPECIFICATION OF JPA1
1	Fuel should be clear, bright and visually free from solid matter & undissolved water at ambient air temperature.
2	Applies at point of manufacture.
3	In the event of a conflict between Sulphur Mercaptan and Doctor Test results, Sulphur Mercaptan shall prevail.
4	When testing by method D 56, a minimum Flash Point of 40°C applies.
5	Lower freezing point may be agreed between customer & producer.
6	When determining the Net Heat of Combustion by ASTM D4529, use equation 1 or Table 1, and when using D3338, use equation 2.
7	No peacock or abnormal colour deposits allowed.
8	Air can be used instead of steam as the vaporising agent.
9	Applies at point of manufacture if fuel contains >95 % hydroprocessed material of which >20% has been severely hydroprocessed.
10	Maximum initial doping is 3 mg/L. Upon redoping the fuel, the maximum allowed cumulative concentration is 5 mg/L.
11	Hitec 580 may be injected at 15 - 23 mg/L.