

## Specifications Type JET A1 -

COMPONENT	UNIT Min/Max	Test Methods ASTM / IP / GOST
<b>COMPOSITION</b>		
Appearance	C&B (1)	Visual
Colour, Saybolt	Report (2)	D156, D6045
Acidity, Total (mg KOH/g)	Max. 0.10	D3242, IP 354
Aromatics (vol %)	Max. 25.0	D1319, IP 156, GOST R 52063
Sulphur, Total (wt %)	Max. 0.25,	D1266, D1552, D2622, D4294, D5453, IP107, IP 243, IP 336, IP 373, IP 447,  GOST R 51947, GOST R 51859
Sulphur, Mercaptan (wt %)	Max. 0.0030 (3)	D3227, IP 342, GOST R 52030
OR Doctor Test	Negative (3)	D4952, IP 30
<b>VOLATILITY</b>		
Distillation Temperature:		D86, IP 123
10% Recovery (°C)	Max. 205.0	
50% Recovery (°C)	Report	
90% Recovery (°C)	Report	
Final BP (°C)	Max. 300.0	
Distillation Residue (vol %)	Max. 1.5	
Distillation Loss (vol %)	Max. 1.5	
Flash Point (°C)	Min. 38.0	D56 (4), D3828, IP170
Density @ 15°C (kg/m3)	775.0 - 840.0	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)	Min. 42.80 (6)	D3338, D4529, D4809, IP 12, IP 355
Smoke Point (mm)	Min. 25	D1322, IP 57
OR Smoke Point (mm)	Min. 19	D1322, IP57
AND Naphthalenes (vol %)	Max. 3	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	Max. 7 (8)	D381, IP 131
Water Reaction Interface Rating	Max. 1b	D1094
MSEP Rating Fuel without SDA	Min. 85	
Fuel with SDA	Min. 70	
Particulates (mg/dm3)	Max. 1.0 (2)	D5452, IP423
<b>OTHER</b>		
Conductivity (pS/m)	50-600	D2624, IP 274, GOST 25950
Without SDA	Max. 10	
BOCLE Wear Scar Diameter (mm)	Max. 0.85 (9)	D5001

ADDITIVES		
Antioxidant	Optional (24 mg/L max)	
Static Dissipator	Optional (10)	
Lubricity Improver	Optional (11)	

- (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.