

## Aviation turbine fuel Jet A-1

QUALITY SPECIFICATIONS		
PROPERTY	LIMITS	TEST METHOD
Appearance	Clear, bright and visually free from solid matter and un-dissolved water at ambient temperature.	Visual
Color	Report	ASTM D 5452-08
Particulate contamination, mg/l,	max 1,0	ASTM D 6045-13
Particulate, at point of manufacture, cumulative channel particle counts, ISO Code and Individual Counts		
≥ 4 µm(c)	Report	STB 2276-2012 (IP 565/11)
≥ 6 µm(c)	Report	
≥ 14 µm(c)	Report	
≥ 21 µm(c)	Report	
≥ 25 µm(c)	Report	
≥ 30 µm(c)	Report	
<b>Composition</b>		
Total Acid Number, mg KOH/g	max 0,015	ASTM D 3242-08
Aromatics, % vol.	max 25,0	ASTM D 1319-08
Sulphur, Total, % mass	max 0,30	ASTM D 4294-03
Sulphur, Mercaptan, % mass	max 0,0030	GOST 32462-2013 (ASTM D 3227-04a (2010), IDT)
<b>Refinery Components at the point of manufacture:</b>		
Non Hydroprocessed Components, % vol.	Report (incl. 'nil' or 100%)	
Mildly Hydroprocessed Components, % vol.	Report (incl. 'nil' or 100%)	
Severely Hydroprocessed Components, % vol.	Report (incl. 'nil' or 100%)	
Synthetic Components, % vol.	Report (incl. 'nil' or 100%)	
<b>Volatility</b>		
Distillation		
Initial Boiling point, °C	Report	STB 1934-2009 (ASTM D 86-07b, IDT)
10 % vol. recovered at, °C	max 205	
50 % vol. recovered at, °C	Report	
90 % vol. recovered at, °C	Report	
End Point, °C	max 300	
Residue, % vol.	max 1,5	
Loss, % vol.	max 1,5	
Flash Point, °C	min 38	STB ISO 13736-2007
Density at 15°C, kg/m <sup>3</sup>	775,0 - 840,0	STB 1468-2004 (ASTM D 4052-2002, IDT)
<b>Fluidity</b>		
Freezing Point, °C	max -47,0	STB 1633-2006 (ASTM D 2386-05, IDT)
Kinematic Viscosity at -20°C, mm <sup>2</sup> /s (cSt)	max 8,000	STB 1798-2007 (ASTM D 445-06, IDT)
<b>Combustion</b>		

Net heating value, MJ/kg	min 42,80	STB 2011-2009 (ASTM D 4809-09, IDT)
Smoke Point, mm	min 25,0	ASTM D 1322-97 (2002)
OR Smoke Point, mm	min 19,0	ASTM D 1322-97 (2002)
AND Naphthalenes, % vol.	max 3,00	ASTM D 1840-07
<b>Corrosion</b>		
Corrosion, Cooper strip, classification (2 hours +/-5 min. at 100°C +/-1°C)	max 1	STB 1816-2007 (ASTM D 130-04, IDT)
<b>Stability</b>		
Thermal Stability (JFTOT) Control temperature, °C	min 260	STB 1665-2012 (ASTM D 3241-11a, IDT)
Filter Pressure Differential, mm Hg	max 25,0	
Tube Deposit Rating (visual)	less than 3, no 'Peacock' or 'Abnormal' colour deposits	
<b>Contaminants</b>		
Existent Gum, mg/100ml	max 7,0	STB 1652-2006 (ASTM D 381-04, IDT)
Microseparometer (MSEP), rating Fuel with Static Dissipator Additive	min 70	ASTM D 3948-07
OR Fuel without Static Dissipator Additive	min 85	
<b>Conductivity</b>		
Electrical Conductivity, pS/m	50 - 600	STB 1587-2012 (ASTM D 2624-09, IDT)
<b>Lubricity</b>		
BOCLE wear scar diameter, mm	max 0,85	ASTM D 5001-08
<b>Additives</b>		
Antioxidant Kerobit TP 26 (RDE/A/609), mg/l	17,0 - 24,0	
Static dissipator additive Stadis 450 (RDE/A/621), mg/l	max 3,0	
Metal Deactivator (Optional), mg/l	max 5,7	