AVIATION TURBINE FUEL JET A1[3]

USE: AS FUEL FOR JET ENGINES

PROPERTY	MU	LIMITS Min.	LIMITS Max.	TEST METHOD
APPEARANCE				
Visual appearance	Clear, bright and visually free from solid matter and un-dissolved water at ambient fuel temperature			ASTM D 4176-22 (method 1)
Saybolt Colour, at point of manufacture		Report		ASTM D 156-15[1] / ASTM 6045-20
PARTICULARE AT POINT OF MANUFACTURE				
Contamination	mg/l	-	1.0	ASTM D 5452-23[1]
Or Cumulative channel particle counts	No/ml	Channel counts /ISO code		IP 565
≥ 4 µm(c)		Report / max 19		
≥ 6 µm(c)		Report / max 17		
≥ 14 µm(c)		Report / max 14		
≥ 21 µm(c)		Report		
≥ 25 µm(c)		Report		
≥ 30 µm(c)		Report / max 13		
COMPOSITION				
Total acidity[4]	mg KOH/g	-	0.015	ASTM D 3242-11(2017)[1]
Aromatics[4]	% (v/v)	-	25.0	ASTM D 1319-20a[1]
Or Total Aromatics[4]			26.5	ASTM D 6379-21e1[1]
Sulphur, Total	% (m/m)	-	0.30	ASTM D 2622-21[1] / ASTM D 5453-19a[1] ASTM D 4294-21[1]
Sulphur, Mercaptan	% (m/m)	-	0.0030	ASTM D 3227-23[1]
Refinery Components, at point of manufacture:				
Non Hydroprocessed Components	% (v/v)	Report		DEF STAN 91-091 Edition 17
Severely Hydroprocessed Components	% (v/v)	Report		
Synthetic Components	% (v/v)	Report		
VOLATILITY				
Distillation				ASTM D 86 - 23[1] / SR EN ISO 3405:2019[1]
Initial Boiling Point	°C	Report		
Fuel Recovered				
10 % (v/v)	°C	-	205.0	
50 % (v/v)	°C	Report		
90 % (v/v)	°C	Report		
End Point	°C	-	300.0	
Residue	% (v/v)	-	1.5	
Loss	% (v/v)	-	1.5	
Flash point, TAG	°C	38.0	-	ASTM D 56-22[1]
Density at 15 °C	kg/m^3	775.0	840.0	ASTM D 1298-12b(2017)e1 / ASTM D 4052-22[1] SR EN ISO 3675:2002 / SR EN ISO 3675:2002 / C91:2005[1] / SR EN ISO 12185:2003[1] / EN ISO 12185:1996[1] / ISO 12185:1996[1]
FLUIDITY				
Freezing point	°C	-	-47.0	ASTM D 7153-22ae1[1]

Kinematic viscosity at - 20 °C	(mm^2/s)	-	8.0	SR EN ISO 3104:2020[1] / EN ISO 3104:2020[1]/ ASTM D 445-21e2[1]
COMBUSTION				
Specific Energy, net	MJ/kg	42.80	-	ASTM D 33381 / D 3338M-20a[1]
Smoke Point	mm	25.0	-	ASTM D 1322-22[1]
OR				
Smoke Point	mm	18.0	-	ASTM D 1322-22[1]
AND Naphthalenes	% vol	-	3.00	ASTM D 1840-22
CORROSION				
Corrosion, Copper strip, clasification (2 hours +/- 5min at 100°C +/-1 °C)		-	Class 1	ASTM D 130-19[1]/ SR EN ISO 2160-2003[1]
STABILITY				
Thermal Stability (JFTOT) [4]				ASTM D 3241-23[1]
Control temperature	°C	260		
Filter Pressure Differential	mmHg	-	25	
Tube Deposing Rating (visual)		-	<3	
CONTAMINANTS				
Existent Gum	mg/100ml	-	7	IP 540-08(2014)[1]
WATER SEPARATION CHARACTERISTICS				
Microseparometer (MSEP), rating, - Fuel with Static Dissipator Additive		70	-	ASTM D 3948-22[1]
CONDUCTIVITY				
Electrical conductivity	pS/m	50	600[2]	ASTM D 2624-22[1] see DEF STAN 91-091 Edition 17, Note 17
ADDITIVES				
The product is additivated with:				
– Static Dissipator (Stadis 450) type RDE/A/621	mg/l	-	3	According to Unit notification
– Antioxidant (2,6-ditertiary-butyl-4-methyl phenol), tip RDE/A/607	mg/l	-	24	

NOTES: 1) Accredited test by RENAR **2)** at delivery, after electrical conductivity additive injection **3)** It is certified that the samples have been tested using the Test Methods stated and that the Batch represented by the samples conforms with AFQRJOS Checklist Issue 34/January 2024 and DEF STAN 91-091 Issue 17. **4)** This condition is guaranted by the manufacturing technology and is checked weekly on the average sample of the tanks.

Quality control: control is done on lot.
Each batch will have max. 2000 tones for delivery in tank wagons and road trucks or tank capacity for delivery through pipelines. The lot will have product of same type.
During testing, the product must comply with all parameters depicted in standard specification for corresponding product/type. If not, the batch is rejected.
In case of dispute, the quality control will be performed on samples taken in accordance with the sampling procedure and kept for this case.
Sampling procedure: SR EN ISO 3170:2004 / C91:05 / ASTM D 4057-22
Information on product classification, packing, labelling, handling, transport and storage: according to SDS 2.4.T.

The Integrated Management System is certified according to the following standards:
- ISO 9001
- ISO 14001
- ISO 45001
- ISO 50001

The test lab is accredited by RENAR, in compliance with SR EN ISO/CEI 17025.