LUKOIL NEFTOCHIM BOURGAS AD	COMPANY SPECIFICATION	FTS 1.27:2001
	TURBINE FUEL - PT	Supersedes BSS 15636 – 83

1. FIELD OF APPLICATION

This Company specification applies to Turbine fuel PT intended for subsonic and supersonic aviation of limited flight duration and is produced by direct crude oil distillation using hydroprocessing. This fuel must be manufactured observing a technology identical to the technology used for the preparation of the prototype standard fuel, which have passed with a positive result either the State Motor Tests or the Integral Methods for Classification Tests in accordance with the procedures established by the manufacturer, and agreed upon with the user.
Addition of grafts is admissible to the PT fuel in order to improve its performance, provided those have been duly approved for use.

2. SPECIFICATION REQUIREMENTS AND TEST METHODS

The physical, chemical and performance properties of the Turbine fuel PT having 0.003-0.004% antioxidizing graft "Ionol" according to the GOST (Russian state standard) 10894-76 and 0.002-0.004% anti-wear fluid graft "K" must conform to the requirements and the standards, specified in the Table below

No.	PROPERTIES	VALUE	STANDARD REQUIREMENT	TEST METHOD
1.	Density at 15°C, not less than	g/cm^3	0.775	BSS EN ISO 3675-98 EN ISO 12 185-96
2.	Distillation range - Initiation of boiling point (IBP)	°C	135	BSS ISO3405-98
	- 10 vol. % recovered at temperatures, not higher than	°C	175	
	- 50 vol. % recovered at temperatures, not higher than	°C	225	
	- 90 vol. % recovered at temperatures, not higher than	°C	270	
	- 98 vol. % recovered at temperatures, not higher than	°C	280	
3.	Kinematic viscosity: - at 20 °C, not lower than - at minus 40°C, not higher than	Mm^2 /s	 1.25 16.0	BSS ISO 3104-93
4.	Estimated specific heat of combustion (lower), not less than	MJ/kg	43.120	BSS 11481-83
5.	Smoke point, not less than	mm	25	Standard of the Economic Assistance Council 2878-81

IN FORCE AS OF:

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6.	*Acidity	mg KOH / $100cm^3$	0.4-0.7	BSS 1752-88
7.	Iodine number, not higher than	$gJ_2/100g$	0.5	Standard of the Economic Assistance Council 2384-80
8.	Flash point in a closed cup, not lower than	°C	28	ASTM D 56-97a
9.	Initial crystallization point, not higher than	°C	minus 55	Standard of the Economic Assistance Council 3655-82
10.	Aromatic hydrocarbons, not more than	wt. %	22	BSS 15983
11.	Existent gum, not more than	mg/ $100cm^3$	4	BSS ISO 6246-93
12.	Sulfur, not more than	wt. %	0.1	BSS ISO 8754-95
13.	Mercaptan sulfur, not more than	wt. %	0.001	ASTM D 3227
14.	Copper Strip corrosion (2 hours at 100°C), not higher than	bale	1	BSS ISO 2160-95
15.	Naphthenic acid soaps		negative	Standard of the Economic Assistance Council 757-77
16.	Ash, not more than	wt. %	0.003	BSS EN ISO 6345-99
17.	Water soluble acids		negative	BSS 5252-84
18.	Water soluble basic compounds		negative	Item.3.1 under the BSS 15636-83
19.	Hydrogen sulfide test		negative	BSS 5579-70
20.	Mechanical impurities and water		negative	Item 3.2 under BSS 15636-83
21.	Naphthalene hydrocarbons, not less than	wt. %	1.5	BSS 17401-98
22.	Thermal stability (JFTOT) at 150 - 180°C			ASTM D 3241-97
	- Filter Pressure Differential for 5h, not higher than	MPa	0.01	
	Tube Deposits Rating, not higher than	bale	2	
23.	Thermal stability (static) at 150 °C for 5h			BSS 15894-89 Item 3.4 under BSS 15636-83
	- Sediments, not more than	mg/ $100cm^3$	6.0	
	- Soluble gum, not more than	mg/ $100cm^3$	30.0	
	- Insoluble gum, not more than	mg/ $100cm^3$	3.0	
24.	Interaction with water, not more than	bale		Item 3.6 under BSS 15636-83
	- Emulsification		1	
	- Water reaction interface		1	

Notes:

1.* The acidity of basic fuels must not be higher than 0.1 mg KOH/$100cm^3$ product

2. Property parameters under 21, 22, 23 and 25 are determined on a regular basis, but not less frequently than once in three months.

3. ACCEPTING AND SAMPLING PROCEDURES

3.1 Accepting the Turbine Fuel PT is carried out by individual batches (Item 2.1. under BSS 11035-81)

3.2 Sampling is carried out according to BSS ISO 3170-98.

4. PACKAGING, LABELING, STORAGE AND TRANSPORT

4.1. Packaging, labeling storage and transportation of the Turbine Fuel PT must conform to the BSS 11035-81. Each individual package must be marked with the "Toxic" and "Flammable" symbols according to the BSS 16114 85 requirements.

4 2. Transportation must be carried out observing the rules for transporting flammable goods.

4.3. The manufacturer warranties that quality of the Turbine Fuel PT is in conformity with the requirements under this specification subject to the condition that the transportation and storage requirements established by the BSS 11035-81 are observed.

5. DOCUMENTATION

5.1. Each separate batch of the Turbine Fuel JET A-1, intended for delivery must be accompanied by a Quality Certificate, stating the following:

- Name of the manufacturing company;
- Name of the product,
- Tank number;
- Quality Certificate Number and date of issue,
- Test results under Section 2*;*
- Signature of the Head of the Laboratory;
- FTS 1.27:2001;
- The OK symbol.

5.2 Each lorry tank must be accompanied by a ticket (computer print outs), which must contain the following data:

- Name of the product;
- Tank number;
- Quality Certificate Number and date of issue;
- Lorry tank number of the ticket is valid for;
- FTS 1.27:2001.

END