

Specification for fuel oils

PUBLIC REVIEW DRAFT

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PREFACE

This Kenya Standard has been prepared by the Technical Committee on Petroleum and Petroleum Products.

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SPECIFICATION FOR FUEL OILS

1. SCOPE

This Kenya Standard prescribes requirements and test methods for fuel oils intended for oil-fired furnaces both for industrial and marine uses.

2. NORMATIVE REFERENCE

3. REQUIREMENTS

3.1 General The material shall be hydrocarbon oils derived from petroleum or shale. It shall be free from grit and other foreign impurities.

3.2 The material shall also comply with the requirements prescribed in Table 1, when tested according to the corresponding test methods.

Table 1. Requirements

S. No.	Property	Requirement	Test Method
1.	Viscosity @50°C, cSt, max	180	ASTM D445
2.	Density @ 20 °C, Kg/L, max	0.990	ASTM D1298
3.	Conradson Carbon Residue, % wt., max	15	ASTM D189
4.	Sulphur Content, % wt., max	2	ASTM D4294
5.	Vanadium content, mg/kg, max	200	IP 288
6.	Asphaltenes, % wt., max	10	IP 143
7.	Ash content, % wt., max	0.12	ASTM 482
8.	Sodium content, mg/kg, max	1/3 vanadium	IP 288, IP 501
9.	Water content, % vol, max	0.5	ASTM D95
10.	Pour point, °C, max	15	ASTM D97
11.	Flash point, °C, min	66	ASTM D93
12.	Aluminium silicon+ silicon, mg/Kg, max	50	ASTM D5184
13.	Net calorific value, MJ/Kg, min	40.5	ASTM D 4868
14.	CCAI (calculated carbon aromatic Index)	TO BE REPORTED	ISO 8217
15.	Nitrogen content, % wt., max	0.4	ASTM D3228
16.	Sediment by extraction, % wt., max	0.15	ASTM D473
17.	Existent sediment, % m/m, max	0.1	IP 395
18.	Potential sediment, % m/m, max	0.1	IP 390
19.	Neutralization strong acid number, mg KOH/g	NIL	ASTM D974
20.	Calcium, mg/Kg, max	30	IP 470, IP 501
21.	Phosphorus, mg/Kg, max	15	IP 500, IP 501
22.	Zinc , mg/Kg, max	15	IP 470,IP 501
23.	Others		No contamination of lubes.

4.0 Packing and marking

4.1 Packing

The condition of the containers, rail tankers and road tank vehicles shall be such as not to be detrimental to the quality of the fuel during normal transportation and storage. The containers shall be acceptably sealed or leak proof, clean, and free from materials soluble in fuel oil.

4.2 Marking

4.2.1 The following information shall appear in legible and indelible marking on each container or in case of fuel oil filled into bulk storage tanks, in the storage and consignment documents of each road tank wagon or rail tank wagon.

- a) the supplier's and receiver's name and address;
- b) the name "FUEL OIL";
- c) the quantity in litres or metric tonnes;
- d) the batch/lot number;
- e) the word "FLAMMABLE MATERIAL"; and
- f) the warning "DANGER FUEL OIL".

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