

FURNACE OIL (FO)

Furnace oil is a dark viscous residual product used as a fuel.

Broadly the application of Furnace Oil as fuel can be classified as follows: -

Industrial Furnaces: Metallurgical furnaces, pottery and brick kilns, cement and lime kilns, glass furnaces etc.

Steam raising: In the processing industry and thermal power stations.

SPECIAL APPLICATIONS:

In marine engines and for power generation.

For drying tea leaves.

In gas turbines for power generation.

As a feedstock for fertilizer manufacture.

THE FURNACE OIL MARKETED IN INDIA CONFORMS TO MV2 GRADE OF IS 1593:1982 (Reaffirmed 1997) SPECIFICATIONS FOR FUEL OIL.

Sr.No.	Characteristics	Test* Method	Requirements for			
		IS:1448	Grade	Grade	Grade	Grade
			LV	MV I	MV 2	HV
i)	Acidity, inorganic	P: 2	Nil	Nil	Nil	Nil
ii)	Ash, %mass, max.	P: 4 (Method A)	0.1	0.1	0.1	0.1
iii)	Gross calorific value, cal/g	P: 6 or 7 #	Not limited, but to be reported ¹			
iv)	Relative density at 15/15°C	P: 32/P: 16	Not limited, but to be reported ²			
v)	Flash Point, (PMCC) °c, min.	P: 21	66	66	66	66
vi)	Kinematic viscosity in centistokes at 50 °c, max: Above Up to	P: 25	- 80	80 125	125 180	180 370
vii)	Sediment, % mass, max.	P: 30	0.25	0.25	0.25	0.25
viii)	Sulphur, total, % by mass, max.(see note 3)	P: 33 or ** P: 35	3.5	4.0	4.0	4.5
ix)	Water content, % by vol., max.	P: 40	1.0	1.0	1.0	1.0

Note:

1. Normally the gross calorific value is of the order of 10,000 cal/g.
2. Fuel oil for marine uses in diesel engines shall not exceed a limit of 0.99.
3. Recognizing the necessity for lower-sulphur fuel oils in some specialized uses, a lower limit may be specified by mutual agreement between the purchaser and the supplier.

*Method of test for petroleum and its products.

** for reference and P: 35 for routine.

p: 6 for reference and P: 7 for routine.