



ATTOCK REFINERY LTD

TECHNICAL DATA SHEET

FURNACE FUEL OIL (FFO)

Product Description:

The furnace fuel oil is produce as by-product in fractional distillation of crude oil. Furnace fuel oil is the residue of Crude Distillation Unit (CDU) and Vacuum Distillation Unit (VDU). Attock Refinery Limited produce furnace fuel oil that's conforms the Pakistan Standards & Quality Control Authority and Ministry of Petroleum and Natural Resources specifications.

Application and Benefits:

Furnace Fuel oil is mainly used for thermal power production in thermal power house. Also used in boilers, industrial furnaces and other combustion equipment. This product should not be used in applications other than those recommended.

Health, Safety and Environment:

Health, safety and environmental information are provided for this product in the Safety Data Sheet. This gives details of the potential hazards, precautions and First Aid measures. Attock Refinery Ltd will not accept liability if the product is used other than in the manner, with the precautions, or for the purposes specified

- **Typical information from MSDS**

Wear PPE to avoid contact with skin, eyes and respiratory tract. Wash face, hands and forearms thoroughly after handling. Keep clear from sources of ignition. Ensure electrical continuity of all relevant equipment by proper bonding as electrostatic charges can potentially be generated during pumping and tank-filling operations. Recycle all waste where possible.

Storage:

All packages should be stored under cover. Keep containers closed and clearly labeled. The storage area should comply with NFPA 31. Avoid inhalation of vapours and mists, and skin or eye contact. Use only in a well ventilated area. Keep containers sealed when not in use. Prevent the build up of mists or vapours in the work atmosphere.



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Specifications & Typical Value:

TEST DESCRIPTION	UNIT	TEST METHOD	SPECIFICATIONS	MAX / MIN	ARL TYPICAL
Specific gravity 15.6°C (60°F)	-	D1298	0.980	Max	0.940
Flash point	°C	D93	66	Min.	100
Viscosity, Kinematic at 50°C	cSt	D445	180	Max	110
Pour Point	°C	D97	24	Max	21
Water	wt%	D95	0.05	Max.	0.025
Strong Acid Number	mg KOH/gm	D974	Nil	-	Nil
Ash contents	wt%	D482	0.10	Max.	0.06
Calorific Value, Gross	BTU/Lb	D240	18200	Min	18600
Conradson carbon	wt%	D189	15	Max.	8
Sulphur	wt%	D4294	3.50	Max.	1.00
Vanadium	ppm	AAS	100	Max.	2
Sodium & Potassium			50	Max.	13
Sediments	wt%	D473	0.15	Max.	0.07

For more Information Please Contact **Attock Refinery Ltd.** Phone: 92-51-5487041 / Ext. 2596 / 2469