

aboratory

Bharat Petroleum Corporation Ltd., QA Laboratory, Manglia Depot,
A. B. Road, Manglia, Indore, Madhya Pradesh

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-6196

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Validity 30.08.2017 to 29.08.2019

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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CHEMICAL TESTING

I. PETROLEUM AND PRODUCTS				
1.	Motor Sprit / High Speed Diesel/ Kerosene/Ethanol/ Hexane	Appearance	WI-02	Qualitative (Visual)
		Colour	WI-03-A	Qualitative (Visual)
3.	Motor Sprit	Aromatics	IS 1448 (Part 23) ASTM D1319	Aromatics: 5 % by Vol. to 60 % by Vol.
		Olefins Content		
		Existent Gum	IS 1448 (Part 29)	1.0 g/m ³ to 100 g/m ³
		Research Octane No. (RON)	IS 1448 (Part 27) ASTM D 2699-2016e	40 to 100
	Ethanol Content	IS 2796 Annex C	0 to 20 % by Vol.	
4.	Motor Sprit / High Speed Diesel/ Kerosene	Cu Strip Corrosion rating	IS 1448 (Part 15)	Grading 1a to 4c
5.	Motor Sprit / High Speed Diesel/ Kerosene/Ethanol/ Hexane/Furnace Oil	Density	IS 1448 (Part 16) ASTM D1298: 2012b	660 kg/m ³ to 1000 kg/m ³ or 0.660 g/ml to 0.1000 g/ml
6.	Motor Sprit / High Speed Diesel/ Kerosene/Hexane	Distillation	IS 1448 (Part 18) ASTM D86:16a	
		a) IBP °C		20 to 395
		FBP °C		
	% Volume Recovered		0 to 100 ml	

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7.	Ethanol	Ethanol Content % by Volume at 15.6/15.6°C	IS 15464: Amd. 1	94 to 100
		Miscibility with Water	IS 15464: Annexure C	Qualitative (Yes / No)
		Relative Density at 15.6/16.6 °C	IS 15464: 2004 Amd. 1	0.60 to 0.85
8.	High Speed Diesel/ Kerosene/	Flash Point (Abel)	IS 1448 (Part 20) IP 170	18 °C to 70 °C
9.	Furnace Oil	Flash Point (Pensky Marten)	IS 1448 (Part 21) ASTM D 93: 2016	60 °C to 350 °C
		Kinematic Viscosity at 50°C	IS 1448 (Part 25)	100 cSt to 400 cSt
		Relative Density at 15.6/15.6°C	IS 1448 (Part 16)	850 to 1000
10.	High Speed Diesel	Pour Point	IS 1448 (Part 10) ASTM D 97	(-) 38 °C to (+) 30 °C
		Kinematic Viscosity at 40 °C	IS 1448 (Part 25) ASTM D 7042: 2014	1.0 cSt to 200 cSt
		Cetane Index (Calculated)	ASTM D 4737	Upto 65
11	Kerosene	Smoke Point	IS 1448 (Part 31) ISO 3014: 1993	5 mm to 35 mm
		Colour - Saybolt, Units	IS 1448 (Part 14)	(-) 16 to (+) 30
12.	Motor Sprit / High Speed Diesel/ Kerosene/Furnace Oil	Sulphur	ISO 20847-04 ASTM D 4294:16a	0.0005 mg/kg to 5.0 mg/kg
13.	High Speed Diesel/ Furnace Oil	Water Content	IS 1448 (Part 40) ASTM D 95: e1	0 to 25 % by Vol.

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II.	LUBRICANTS			
1.	Oil and Grease	Appearance	WI-02	Qualitative (Visual)
		Colour	WI-04-A	Qualitative (Visual)
		Colour - ASTM	IS 1448 (Part 12) ASTM D 1500	Grading 0 to 8.0
		Crackle Test	WI-03A	Qualitative
		Cu Strip Corrosion rating	IS 1448 (Part 15)	1a to 4c
		Density	IS 1448 (Part 16) ASTM D 1298: 2012b	0.660 kg/m ³ to 0.1000 kg/m ³
		Flash Point (COC)	IS 1448 (Part 69) ASTM D-92	Upto 380 °C
		Flash Point (Pensky Marten)	IS 1448 (Part 21) ASTM D 93	60 °C to 350 °C
		Kinematic Viscosity at 40 °C	IS 1448 (Part 25) ASTM D 445: 2017a	1.0 cSt to 400 cSt
		Kinematic Viscosity at 100 °C	IS 1448 (Part 25) ASTM D 445: 2017a	1.0 cSt to 50 cSt
		Pour Point	IS 1448 (Part 10) ASTM D 97	(-) 38 °C to (+) 30 °C
		Viscosity Index	IS 1448 (Part 56) ASTM D 2270	85 to 150
		Water Content	IS 1448 (Part 40) ASTM D 95: 13e1	0 to 25 % by Vol.
		Kinematic Viscosity at 40 °C	ASTM D 7042: 2016e	1.0 cSt to 200 cSt
		Kinematic Viscosity at 100 °C	ASTM D 7042: 2016e	1.0 cSt to 50 cSt

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