



HINDUSTAN PETROLEUM CORPORATION LTD.  
(A Govt. of India Undertaking)



Quality Control Laboratory, Vashi Terminal

A BIS recognized Laboratory for Biodiesel testing  
(Vide certificate no.: LRMD/LRS/OSL-7161816)

LABORATORY INSPECTION REPORT

PRODUCT NAME : BIO DIESEL (B-100)  
CUSTOMER NAME : E SHAKTI BINARY CURRENTS PVT LTD  
DATE SAMPLE RECEIVED : 17.09.2022  
DATE REPORTED : 23.09.2022  
LABORATORY SERIAL NO. : MIS- 251  
PARTICULARS OF SAMPLE : JOINT SAMPLE TESTING (SH. RAVINDRA GANGAN, IOCL)  
SEAL NO: 8270921A/22A/19A/20A

Sl. No.	Characteristic	Test methods	Specification		Test Results
			Min	Max	
1	Appearance	Visual	Clear & free from visual impurities at room temp		Clear & free from visual impurities at room temp
2	Colour	Visual	Report		Yellow
3	Density at °C, kg/m <sup>3</sup>	IS 1448: P : 16	860.0	900.0	873.5
4	Kinematic Viscosity at 40°C, cSt	IS 1448: P : 25 Sec - 1	3.5	5.0	4.791
5	Flash point (PMCC) °C	IS 1448: P : 21	101.0	---	107
6	Total Sulphur, mg/kg, Max	ASTM D5453	---	10.0	1.7
7	Carbon residue (MCR), % by mass	ASTM D 4530	---	0.05	0.01
8	Sulphated ash, percent by mass	IS 1448: P : 187	---	0.02	0.003
9	Water content, mg/kg	IS 1448: P : 175	---	500	475
10	Total contamination, mg/kg	EN 12662	---	24	20.1
11	Copper strip corrosion, 3 h at 50°C	IS 1448: P : 15	---	1	1
12	Cetane Number	IS 1448: P : 9	51	---	71.9
13	Acid value, mg KOH/g	ASTM D 664	---	0.50	0.15
14	Methanol, % by mass	EN 14110	---	0.20	0.15
15	Ester content, % by mass	EN 14103	96.5	---	96.9
16	Linolenic acid methyl ester, percent m/m		---	12.0	0.27
17	Monoglycerides content, percent by mass	EN 14105	---	0.70	0.11
18	Diglyceride content, percent by mass		---	0.20	0.04
19	Triacylglyceride content, percent by mass		---	0.20	0.01
20	Free Glycerol, percent by mass		---	0.02	0.0
21	Total Glycerol, percent by mass		---	0.25	0.23



TC-5246

Sl. No.	Characteristic	Test methods	Specification		Test Results
			Min	Max	
22	Phosphorous, mg/kg	EN 14107	---	4.0	<1.0
23	Sodium + Potassium, mg/kg	EN 14538	---	5.0	2.6
24	Calcium + Magnesium, mg/kg	EN 14538	---	5.0	<1.0
25	Iodine value, gm Iodine/100 gm	EN 14111	---	120	30.5
26	Oxidation stability, at 110 °C, hrs, Accelerated	EN 15751	8	---	>8.0
27	Cold Filter Plug Point, °C	IS 1448: P : 110	---	18	16
28	Polyunsaturated methyl ester, percent m/m	EN 15779	---	1	0.33

**Remark:** Sample ID: MIS-251. Sample meets specification as per IS 15607:2022 in all above parameters.

**Note**

- 1) The sample is drawn by client and results relate to sample as received and tested.
- 2) This report shall not be reproduced except in full without prior written approval of the lab in-charge.
- 3) This test report shall not be used in any advertising media or as evidence in the Court of Law without prior permission.
- 4) This report refers only to the sample submitted.
- 5) Entire quantity of sample expended in testing.
- 6) The details of sample submitted is provided by sender/customer. The authenticity/correctness of the submitted data is the responsibility of the sender/customer.

  
AUTHORISED SIGNATORY  
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वाशी टर्मिनल  
Vashi Terminal

\*\*\* END OF TEST REPORT \*\*\*