National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : FORENTEC ENGINEERS PVT LIMITED (DIVISION: TESTING LAB), 4TH & 5TH FLOOR, SKYLINE, KADRU, RANCHI, JHARKHAND, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-10431 **Page No** 1 of 6

Validity 17/03/2022 to 16/03/2024 **Last Amended on** -

S.No	Discipline / Group	Materials or Products tested	Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed	Test Method Specification against which tests are performed and / or the techniques / equipment used
Permanent Facility				
1	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Carbon Type Composition (PNA Analysis)- Aromatic	ASTM D2140
2	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Carbon Type Composition (PNA Analysis)- Aromatic	IS 13155
3	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Carbon Type Composition (PNA Analysis)- Naphthenic	ASTM D2140
4	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Carbon Type Composition (PNA Analysis)- Naphthenic	IS 13155
5	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Carbon Type Composition (PNA Analysis)- Paraffinic	ASTM D2140
6	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Carbon Type Composition (PNA Analysis)- Paraffinic	IS 13155
7	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Density @ 29.5 °C max	ASTM D1298
8	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Density @ 29.5 °C max	IS 1448 (Part 16)
9	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Density @ 29.5 °C max	ISO 3675
10	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dielectric Dissipation Factor (Tan Delta)	ASTM D924
11	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dielectric Dissipation Factor (Tan Delta)	IEC 60247
12	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dielectric Dissipation Factor (Tan Delta)	IS 6262
13	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dielectric Strength (Break Down Voltage)	IEC 60156

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14	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dielectric Strength (Break Down Voltage)	IS 6792
15	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dielectric Strength (Break Down Voltage) using Disc type Electrodes	ASTM D877
16	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dielectric Strength (Break Down Voltage) using VDE Electrodes	ASTM D1816
17	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Acetylene (C2H2)	ASTM D3612
18	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Acetylene (C2H2)	IEC 60567
19	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Acetylene (C2H2)	IS 9434
20	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Carbon Dioxide (CO2)	ASTM D3612
21	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Carbon Dioxide (CO2)	IEC 60567
22	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Carbon Dioxide (CO2)	IS 9434
23	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Carbon Monoxide (CO)	ASTM D3612
24	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Carbon Monoxide (CO)	IEC 60567
25	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Carbon Monoxide (CO)	IS 9434
26	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Ethane (C2H6)	ASTM D3612
27	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Ethane (C2H6)	IEC 60567

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28	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Ethane (C2H6)	IS 9434
29	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Ethylene (C2H4)	ASTM D3612
30	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Ethylene (C2H4)	IEC 60567
31	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Ethylene (C2H4)	IS 9434
32	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Hydrogen (H2)	ASTM D3612
33	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Hydrogen (H2)	IEC 60567
34	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Hydrogen (H2)	IS 9434
35	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Methane (CH4)	ASTM D3612
36	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Methane (CH4)	IEC 60567
37	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Methane (CH4)	IS 9434
38	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Nitrogen (N2)	ASTM D3612
39	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Nitrogen (N2)	IEC 60567
40	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Nitrogen (N2)	IS 9434
41	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Oxygen (O2)	ASTM D3612

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42	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Oxygen (O2)	IEC 60567
43	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Oxygen (O2)	IS 9434
44	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Propane (C3H8)	ASTM D3612
45	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Dissolved Gas Analysis- Propylene (C3H6)	ASTM D3612
46	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Flash Point	ASTM D93
47	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Flash Point	IEC 61100
48	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Flash Point	IS 1448 (Part- 21)
49	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Furan Analysis- 2-Furyl Methyl Ketone (2ACF)	ASTM D5837
50	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Furan Analysis- 2-Furyl Methyl Ketone (2ACF)	IEC 61198
51	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Furan Analysis- 2-Furyl Methyl Ketone (2ACF)	IS 15668
52	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Furan Analysis- 5-(Hydroxymethyl)furfural (5HMF)	ASTM D5837
53	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Furan Analysis- 5-(Hydroxymethyl)furfural (5HMF)	IEC 61198
54	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Furan Analysis- 5-(Hydroxymethyl)furfural (5HMF)	IS 15668
55	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Furan Analysis- 5-Methylfurfural (5MEF)	ASTM D5837

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56	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Furan Analysis- 5-Methylfurfural (5MEF)	IEC 61198
57	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Furan Analysis- 5-Methylfurfural (5MEF)	IS 15668
58	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Furan Analysis- Furfural (2FAL)	ASTM D5837
59	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Furan Analysis- Furfural (2FAL)	IEC 61198
60	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Furan Analysis- Furfural (2FAL)	IS 15668
61	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Furan Analysis- Furfuryl Alcohol (2FOL)	ASTM D5837
62	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Furan Analysis- Furfuryl Alcohol (2FOL)	IEC 61198
63	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Furan Analysis- Furfuryl Alcohol (2FOL)	IS 15668
64	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Kinematic Viscosity @ 27 °C	ASTM D7042
65	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Kinematic Viscosity @ 27 °C	IS 1448 (Part-25)
66	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Kinematic Viscosity @ 27 °C	ISO 3104
67	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Moisture/Water Content	ASTM D1533
68	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Moisture/Water Content	IEC 60814
69	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Moisture/Water Content	IS 13567

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70	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Specific Resistance (Resistivity)	ASTM D1169
71	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Specific Resistance (Resistivity)	IEC 60247
72	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Electrical Insulating Oil	Specific Resistance (Resistivity)	IS 6103