



#### CERTIFICATE OF ACCREDITATION

# NDL POWER LIMITED TRANSFORMER MONITORING LABORATORY

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

# "General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

KHEWAT NO.: 240/189, ISMAILA-11B, SAMPLA BERI ROAD, ROHTAK, HARYANA, INDIA

in the field of

**TESTING** 

**Certificate Number:** TC-8527

Valid Until: **Issue Date:** 14/10/2024 13/10/2028

NOTTAN . INDIA . This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL. (To see the scope of accreditation of thislaboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Entity: NDL Power Limited.

Signed for and on behalf of NABL



N. Venkateswaran Chief Executive Officer





# SCOPE OF ACCREDITATION

**Laboratory Name:** 

NDL POWER LIMITED TRANSFORMER MONITORING LABORATORY, KHEWAT NO.: 240/189, ISMAILA- 11B, SAMPLA BERI ROAD, ROHTAK,

HARYANA, INDIA

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**Validity** 

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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
	1 4	Permanent Testing	18/3	
1	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Copper Corrosion Test	ASTM D-130
2	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Copper Corrosion Test	IS 1448 Pt-15
3	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Density	ASTM D-1298
4	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Density	IS:1448 PT-16
5	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Density	ISO-3675
6	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Flash Point(COC)	ASTM D-92
7	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Flash Point(COC)	IS 1448 Pt-69
8	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Flash Point(COC)	ISO -2592
9	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Flash Point(PMCC)	ASTM D-93
10	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Flash Point(PMCC)	IS 1448 Pt-21
11	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Flash Point(PMCC)	ISO -2719
12	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Insolubles	IS-1448 (P-30)
13	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Kinematic Viscosity	ASTM D-445
14	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Kinematic Viscosity	IS 1448 Pt-25
15	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Kinematic Viscosity	ISO -3104
16	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Pour Point	ASTM D-97
17	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Pour Point	IS 1448 Pt-10 (SEC-1)
18	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Pour Point	ISO- 3016
19	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Total Acid Number	ASTM D-664 (Method A)





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20	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Total Acid Number	ASTM D-974
21	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Total Acid Number	IS 1448 (Pt-1,S-1)
22	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Total Acid Number	ISO -6618
23	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Total Acid Number	ISO -6619
24	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Total Base Number	ASTM D-2896
25	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Total Base Number	IS 1448 Pt-86
26	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Total Base Number	ISO-3771
27	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Viscosity Index	ASTM D-2270
28	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Viscosity Index	IS 1448 Pt-56
29	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Water Content	ASTM D-6304
30	CHEMICAL- PETROLEUM AND PRODUCTS	Lubricating oil (New & Used)	Water Content	IS -13567
31	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Insulating/Craft paper	DP value	IEC 60450-7
32	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Ageing Characteristics (Resistivity)	IS 12177 (Method-A)
33	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Ageing Characteristics (Tandelta)	IS 12177 (Method-A)
34	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Ageing Characteristics (Total Acidity)	IS 12177 (Method-A)
35	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Ageing Characteristics (Total Sludge)	IS 12177 (Method-A)
36	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Appearance	IS 1866





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37	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Appearance	IS 335
38	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Colour	ASTM D-1500
39	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Colour	IS 1448 (Pt-12)
40	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Colour	ISO 2049
41	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Corrosive Sulphur	ASTM D1275
42	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Corrosive Sulphur	DIN51353
43	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Corrosive Sulphur	IEC 62535
44	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Corrosive Sulphur	ISO 5662
45	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Density	ASTM D1298
46	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Density	IS:1448 PT-16
47	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Density	ISO 3675
48	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Acetylene)	ASTM D-3612
49	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Acetylene)	IEC-60599
50	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Carbon Dioxide)	ASTM D3612





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51	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Carbon Dioxide)	IEC-60599
52	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Carbon Dioxide)	IS 10593
53	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Carbon Monoxide)	ASTM D3612
54	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Carbon Monoxide)	IEC-60599
55	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Carbon Monoxide)	IS 10593
56	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Ethane)	ASTM D3612
57	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Ethane)	IEC-60599
58	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Ethylene)	ASTM D3612
59	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Ethylene)	IEC-60599
60	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Ethylene)	IS 10593
61	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Hydrogen)	ASTM D3612
62	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Hydrogen)	IEC-60599
63	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Hydrogen)	IS 10593
64	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Methane)	ASTM D3612





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65	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Methane)	IEC-60599
66	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Methane)	IS 10593
67	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Nitrogen)	ASTM D3612
68	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Nitrogen)	IEC-60599
69	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Nitrogen)	IS 10593
70	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Oxygen)	ASTM D3612
71	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Oxygen)	IEC-60599
72	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Oxygen)	IS 10593
73	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Propane)	ASTM D3612
74	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Propane)	IEC-60599
75	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Propane)	IS 10593
76	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Propylene)	ASTM D3612
77	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	DGA (Propylene)	IEC-60599
78	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Dibenzyl Disulfide	IEC-62697(Pt-1)





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79	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Dibenzyl Disulfide	IS 16497(Pt-1)
80	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Electric Strength	ASTM D877
81	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Electric Strength	IEC 60156
82	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Electric Strength	IS 6792
83	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Flash Point	ASTM D93
84	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Flash Point	ISI 1448 Pt-21
85	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Flash Point	ISO 2719
86	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Furan Analysis	ASTM D5837
87	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Furan Analysis	IEC 61198
88	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Furan Analysis	IS 15668
89	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Interfacial Tension	ASTM D-971
90	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Interfacial Tension	EN 14210
91	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Interfacial Tension	IS 6104
92	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Interfacial Tension	ISO 6295





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93	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Kinematic Viscosity	ASTM D445
94	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Kinematic Viscosity	IEC 61868
95	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Kinematic Viscosity	IS 1448 (Part 25)
96	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Kinematic Viscosity	ISO 3104
97	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Neutralization Value	ASTM D664
98	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Neutralization Value	IEC 62021-1
99	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Neutralization Value	ISI 1448 PT-2
100	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Oxidation Stability (Acidity)	ASTM D-2440
101	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Oxidation Stability (Acidity)	IEC-61125
102	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Oxidation Stability (Acidity)	IEC62021-2
103	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Oxidation Stability (Acidity)	IS 335 (Annex-C)
104	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Oxidation Stability (Sludge)	ASTM D-2440
105	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Oxidation Stability (Sludge)	IEC-61125
106	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Oxidation Stability (Sludge)	IS 335 (Annex-C)





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107	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Oxidation Stability (Sludge)	IS 335(Annex-C)
108	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Polychlorinated Biphenyls	IEC 61619
109	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Polychlorinated Biphenyls	IS 16082
110	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Pour Point	ASTM D-97
111	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Pour Point	IS 1448 Pt-10 (SEC-1)
112	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Pour Point	ISO 3016
113	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Presence of Oxidation Inhibitor	IS 13631
114	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Presence of Oxidation inhibitor , Passivators	IEC 60666
115	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Resistivity	ASTM D1169
116	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Resistivity	IEC 60247
117	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Resistivity	IS 6103
118	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Sampling	ASTM D-923
119	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Sampling	IS 6855
120	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Sediment & Sludge	IEC 60422 (Annex-C)





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121	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Sediment & Sludge	IS 1866 (Annex-A)
122	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Tan Delta	IS 6262-2016
123	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Tan Delta	ASTM D-924
124	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Tan Delta	IEC 60247
125	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Water Content	ASTM D1533
126	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Water Content	IEC 60814
127	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil (New & Used)	Water Content	IS 13567
128	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil New & Used	DGA (Acetylene)	IS 10593
129	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil New/Used	Corrosive Sulphur	ISO 5662
130	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Appearance	IEC 62770
131	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Appearance	IS 16559
132	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Colour	ASTM D-1500
133	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Colour	IS 1448 (Pt-12)
134	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Colour	ISO 2049





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135	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Corrosive Sulphur	ASTM D1275
136	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Corrosive Sulphur	IEC 62535
137	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Corrosive Sulphur	ISO 5662
138	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Density	ASTM D1298
139	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Density	IS:1448 PT-16
140	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Acetylene)	ASTM D-3612
141	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Acetylene)	IEC-60599
142	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Carbon Dioxide)	ASTM D-3612
143	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Carbon Dioxide)	IEC-60599
144	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Carbon Monoxide)	ASTM D3612
145	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Carbon Monoxide)	IEC-60599
146	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Ethane)	ASTM D3612
147	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Ethane)	IEC-60599
148	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Ethylene)	ASTM D3612





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NDL POWER LIMITED TRANSFORMER MONITORING LABORATORY, **Laboratory Name:** 

KHEWAT NO.: 240/189, ISMAILA- 11B, SAMPLA BERI ROAD, ROHTAK,

HARYANA, INDIA

ISO/IEC 17025:2017 **Accreditation Standard** 

**Certificate Number** TC-8527 Page No 11 of 25

**Validity** 14/10/2024 to 13/10/2028 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
149	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Ethylene)	IEC-60599
150	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Hydrogen)	ASTM D3612
151	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Hydrogen)	IEC-60599
152	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Methane)	ASTM D3612
153	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Methane)	IEC-60599
154	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Nitrogen)	ASTM D3612
155	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Nitrogen)	IEC-60599
156	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Oxygen)	ASTM D3612
157	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Oxygen)	IEC-60599
158	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Propane)	ASTM D3612
159	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Propane)	IEC-60599
160	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Propylene)	ASTM D3612
161	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	DGA (Propylene)	IEC-60599
162	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Dibenzyl Disulfide	IEC-62697(Pt-1)





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163	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Dibenzyl Disulfide	IS 16497(Pt-1)
164	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Electric Strength	ASTM D877
165	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Electric Strength	IEC 60156
166	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Electric Strength	IS 6792
167	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Flash Point	ASTM D93
168	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Flash Point	ISI 1448 Pt-21
169	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Interfacial Tension	ASTM D-971
170	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Interfacial Tension	EN 14210
171	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Interfacial Tension	IS 6104
172	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Interfacial Tension	ISO 6295
173	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Kinematic Viscosity	ASTM D445
174	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Kinematic Viscosity	IEC 61868
175	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Kinematic Viscosity	IS 1448 Pt-25
176	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Kinematic Viscosity	ISO 3104





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177	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Neutralization Value	ASTM D664
178	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Neutralization Value	ISI 1448 PT-2
179	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Oxidation Stability (Acidity)	ASTM D-2440
180	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Oxidation Stability (Acidity)	IEC-61125
181	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Oxidation Stability (Acidity)	IEC62021-2
182	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Oxidation Stability (Acidity)	IS 335(Annex-C)
183	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Oxidation Stability (Sludge)	ASTM D-2440
184	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Oxidation Stability (Sludge)	IEC-61125
185	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Oxidation Stability (Sludge)	IS 335(Annex-C)
186	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Polychlorinated Biphenyls	IEC-61619
187	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Polychlorinated Biphenyls	IS 16082
188	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Pour Point	ASTM D-97
189	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Pour Point	IS 1448 Pt-10 (SEC-1)
190	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Pour Point	ISO 3016





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191	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Presence of Oxidation inhibitor , Passivators	IEC 60666
192	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Presence of Oxidation inhibitor , Passivators	IS 13631
193	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Resistivity	ASTM D1169
194	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Resistivity	IEC 60247
195	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Resistivity	IS 6103
196	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Sampling	ASTM D-923
197	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Sampling	IS 6855
198	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Sediment & Sludge	IEC 60422 (Annex-C)
199	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Sediment & Sludge	IS 1866 (Annex-A)
200	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Tan Delta	IS 6262-2016
201	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Tan Delta	ASTM D-924
202	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Tan Delta	IEC 60247
203	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Water Content	ASTM D1533
204	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Water Content	IEC 60814





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205	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Natural Ester Oil	Water Content	IS 13567
206	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Appearance	IEC 61099
207	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Appearance	IS 16081
208	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Colour	ASTM D-1500
209	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Colour	IS 1448 (Pt-12)
210	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Colour	ISO 2049
211	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Corrosive Sulphur	ASTM D1275
212	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Corrosive Sulphur	IEC 62535
213	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Corrosive Sulphur	ISO 5662
214	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Density	ASTM D1298
215	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Density	IS:1448 PT-16
216	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Acetylene)	ASTM D-3612
217	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Acetylene)	IEC-60599
218	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Carbon Dioxide)	ASTM D3612





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219	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Carbon Dioxide)	IEC-60599
220	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Carbon Monoxide)	ASTM D3612
221	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Carbon Monoxide)	IEC-60599
222	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Ethane)	ASTM D3612
223	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Ethane)	IEC-60599
224	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Ethylene)	ASTM D3612
225	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Ethylene)	IEC-60599
226	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Hydrogen)	ASTM D3612
227	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Hydrogen)	IEC-60599
228	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Methane)	ASTM D3612
229	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Methane)	IEC-60599
230	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Nitrogen)	ASTM D3612
231	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Nitrogen)	IEC-60599
232	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Oxygen)	ASTM D3612





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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
233	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Oxygen)	IEC-60599
234	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Propane)	ASTM D3612
235	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Propane)	IEC-60599
236	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Propylene)	IEC-60599
237	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	DGA (Propylene)	ASTM D3612
238	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Dibenzyl Disulfide	IEC-62697(Pt-1)
239	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Dibenzyl Disulfide	IS 16497(Pt-1)
240	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Electric Strength	ASTM D877
241	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Electric Strength	IEC 60156
242	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Electric Strength	IS 6792
243	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Flash Point	ASTM D93
244	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Flash Point	ISI 1448 Pt-21
245	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Interfacial Tension	ASTM D-971
246	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Interfacial Tension	EN 14210





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247	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Interfacial Tension	IS 6104
248	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Interfacial Tension	ISO 6295
249	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Kinematic Viscosity	ASTM D445
250	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Kinematic Viscosity	IEC 61868
251	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Kinematic Viscosity	IS 1448 Pt-25
252	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Kinematic Viscosity	ISO 3104
253	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Neutralization Value	ASTM D664
254	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Neutralization Value	ISI 1448 PT-2
255	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Oxidation Stability (Acidity)	ASTM D-2440
256	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Oxidation Stability (Acidity)	IEC-61125
257	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Oxidation Stability (Acidity)	IEC62021-2
258	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Oxidation Stability (Acidity)	IS 335(Annex-C)
259	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Oxidation Stability (Sludge)	ASTM D-2440
260	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Oxidation Stability (Sludge)	IEC-61125





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261	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Oxidation Stability (Sludge)	IS 335(Annex-C)
262	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Polychlorinated Biphenyls	IEC-61619
263	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Polychlorinated Biphenyls	IS 16082
264	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Pour Point	ASTM D-97
265	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Pour Point	IS 1448 Pt-10 (SEC-1)
266	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Pour Point	ISO 3016
267	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Presence of Oxidation inhibitor , Passivators	IEC 60666
268	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Presence of Oxidation inhibitor , Passivators	IS 13631
269	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Resistivity	ASTM D1169
270	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Resistivity	IEC 60247
271	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Resistivity	IS 6103
272	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Sampling	ASTM D-923
273	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Sampling	IS 6855
274	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Sediment & Sludge	IEC 60422 (Annex-C)





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275	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Sediment & Sludge	IS 1866 (Annex-A)
276	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Tan Delta	IS 6262-2016
277	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Tan Delta	ASTM D-924
278	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Tan Delta	IEC 60247
279	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Water Content	ASTM D1533
280	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Water Content	IEC 60814
281	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Unused Synthetic Organic Ester Oil	Water Content	IS 13567
282	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Appearance	IEC 61203
283	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Appearance	IS 16099
284	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Colour	ASTM D-1500
285	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Colour	IS 1448 (Pt-12)
286	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Colour	ISO 2049
287	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Corrosive Sulphur	ASTM D1275
288	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Corrosive Sulphur	IEC 62535





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289	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Corrosive Sulphur	ISO 5662
290	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Density	ASTM D1298
291	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Density	IS:1448 PT-16
292	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Acetylene)	ASTM D-3612
293	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Acetylene)	IEC-60599
294	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Carbon Dioxide)	ASTM D3612
295	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Carbon Dioxide)	IEC-60599
296	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Carbon Monoxide)	ASTM D3612
297	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Carbon Monoxide)	IEC-60599
298	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Ethane)	ASTM D3612
299	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Ethane)	IEC-60599
300	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Ethylene)	ASTM D3612
301	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Ethylene)	IEC-60599
302	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Hydrogen)	ASTM D3612





# SCOPE OF ACCREDITATION

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HARYANA, INDIA

**Accreditation Standard** 

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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
303	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Hydrogen)	IEC-60599
304	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Methane)	ASTM D3612
305	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Methane)	IEC-60599
306	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Nitrogen)	ASTM D3612
307	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Nitrogen)	IEC-60599
308	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Oxygen)	ASTM D3612
309	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Oxygen)	IEC-60599
310	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Propane)	IEC-60599
311	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Propane)	ASTM D3612
312	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Propylene)	IEC 60599
313	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	DGA (Propylene)	ASTM D3612
314	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Dibenzyl Disulfide	IEC-62697(Pt-1)
315	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Dibenzyl Disulfide	IS 16497(Pt-1)
316	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Electric Strength	ASTM D877





# SCOPE OF ACCREDITATION

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317	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Electric Strength	IEC 60156
318	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Electric Strength	IS 6792
319	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Flash Point	ASTM D93
320	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Flash Point	ISI 1448 Pt-21
321	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Interfacial Tension	ASTM D-971
322	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Interfacial Tension	EN 14210
323	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Interfacial Tension	IS 6104
324	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Interfacial Tension	ISO 6295
325	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Kinematic Viscosity	ASTM D445
326	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Kinematic Viscosity	IEC 61868
327	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Kinematic Viscosity	IS 1448 Pt-25
328	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Kinematic Viscosity	ISO 3104
329	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Neutralization Value	ASTM D664
330	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Neutralization Value	ISI 1448 PT-2





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331	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Oxidation Stability (Acidity)	ASTM D-2440
332	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Oxidation Stability (Acidity)	IEC-61125
333	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Oxidation Stability (Acidity)	IEC62021-2
334	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Oxidation Stability (Acidity)	IS 335(Annex-C)
335	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Oxidation Stability (Sludge)	ASTM D-2440
336	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Oxidation Stability (Sludge)	IEC-61125
337	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Oxidation Stability (Sludge)	IS 335(Annex-C)
338	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Polychlorinated Biphenyls	IEC-61619
339	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Polychlorinated Biphenyls	IS 16082
340	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Pour Point	ASTM D-97
341	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Pour Point	IS 1448 Pt-10 (SEC-1)
342	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Pour Point	ISO 3016
343	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Presence of Oxidation inhibitor , Passivators	IEC 60666
344	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Presence of Oxidation inhibitor , Passivators	IS 13631





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345	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Resistivity	ASTM D1169
346	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Resistivity	IEC 60247
347	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Resistivity	IS 6103
348	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Sampling	ASTM D-923
349	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Sampling	IS 6855
350	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Sediment & Sludge	IEC 60422 (Annex-C)
351	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Sediment & Sludge	IS 1866 (Annex-A)
352	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Tan Delta	IS 6262-2016
353	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Tan Delta	ASTM D-924
354	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Tan Delta	IEC 60247
355	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Water Content	ASTM D1533
356	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Water Content	IEC 60814
357	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Used Synthetic Organic Ester Oil	Water Content	IS 13567