National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : HINDUSTAN PETROLEUM CORPORATION LIMITED, MAZGAON QC LABORATORY, LUBE PLANTS, HAY BUNDER ROAD, MUMBAI, MAHARASHTRA, INDIA

Accreditation Standard ISO/IEC 17025:2017

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Validity 10/01/2022 to 09/01/2024 **Last Amended on** 22/01/2022

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	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Copper Strip Corrosion 3hrs at 100°C	ASTM D130
2	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Copper Strip Corrosion 3hrs at 100°C	IS 1448 (Part 15)
3	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Emulsion Characteristics @54 °C/82°C	ASTM D-1401
4	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Emulsion Characteristics @54 °C/82°C	IS: 1448 :(Part 91)
5	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Foaming Test Sequence I	ASTM D-892
6	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Water	ASTM D-6304
7	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Water	ASTM D95
8	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Water	IS 1448 (Part 40)
9	CHEMICAL- LUBRICANTS	Automotive	Apparent Viscosity at High Temperature High Shear at 150 Deg C	ASTM D 4683
10	CHEMICAL- LUBRICANTS	Automotive	Evaporation Loss (Noack Volatility)	ASTM D 5800 (Procedure C)
11	CHEMICAL- LUBRICANTS	Automotive	Nitrogen % wt	ASTM D 4629
12	CHEMICAL- LUBRICANTS	Automotive Oil	Foaming Test Sequence IV	ASTM D-6082
13	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Acidity Total, (TAN)	IS: 1448(P2)
14	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Acidity Total, (TAN)	ASTM D 974
15	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Aniline Point	ASTM D 611
16	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Aniline Point	IS 1448 (Part 3)
17	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Ash Content	IS 1448 (Part 4)
18	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Calcium	ASTM D6443
19	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Foaming Test Sequence III	IS 1448 (Part 67)
20	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Phosphorous	IS 1448 (Part 101)
21	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Rust Test	ASTM D-665
22	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Rust Test	IS 1448 (Part 96)
23	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	TBN	ASTM D-2896
24	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	TBN	IS 1448, (Part 86)
25	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Zinc	ASTM D4927

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26	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Zinc	ASTM D6443
27	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Density @ 15°C / 29.5 °C	ASTM D 1298
28	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Acidity Inorganic	IS 1448 (Part 02)
29	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Acidity Total, (TAN)	ASTM D 664
30	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Air Release Value @ 50°C	ASTM D 3427
31	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Air Release Value @ 50°C	IS 102
32	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Apparent viscosity using Cold Cranking Simulator (CCS) @(-)10 °C,(-)15 °C, (-)20 °C (-)25 °C, (-)30 °C, (-)35 °C	ASTM D 5293
33	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Appearance	WI/MAZ/17 Issue No.4 Date of Issue
34	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Ash (Sulphated) Content	ASTM D-874
35	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Ash (Sulphated) Content	IS 1448(Part 4)
36	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Ash Content	ASTM D-482
37	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Brookfield Viscosity	ASTM D 2983
38	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Carbon Type Composition - Ca	ASTM 2140
39	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Carbon Type Composition - Cn	ASTM D 2140
40	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Carbon Type Composition Cp	ASTM D 2140
41	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	CCR	ASTM D 189
42	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	CCR	IS 1448 part 122
43	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Channel point	IS 1118
44	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Chlorine	ASTM D6443
45	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Colour (ASTM)	ASTM D 1500-12
46	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Colour (ASTM)	IS 1448 (Part 12)
47	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Density @ 15 Deg C/ 20 Deg C / 29.5 Deg C	ASTM D 7042
48	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Density @ 15°C / 29.5 °C	IS 1448 (Part 16)
49	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Density @ 15°C/29.5 °C Auto	ASTM D-4052
50	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Dielectric Strength (BDV)	ASTM D 877
51	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Dielectric Strength (BDV)	IP 295
52	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Elements : Magnesium	ASTM D 6443

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53	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Emulsion Test	IS 1448 (Part 98)
54	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Evaporation at 163 degC	IS 1212
55	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Evaporation Loss	IS 2664
56	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Flash Point ,COC	ASTM D 92
57	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Flash Point ,COC	IS 1448 (Part 69)
58	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Flash Point, PMC	ASTM D-93
59	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Flash Point, PMC	IS 1448 (Part 21)
60	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Foaming Test Sequence I	IS 1448 (Part 67)
61	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Foaming Test Sequence II	ASTM D-892
62	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Foaming Test Sequence II	IS 1448 (Part 67)
63	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Foaming Test Sequence III	ASTM D-892
64	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Four Ball Weld Load	ASTM D 2783
65	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Frothing Test	IS 1448 (Part 99)
66	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Kinematic Viscosity @ - 20 deg C	ASTM D 445
67	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Kinematic Viscosity @ 100°C	ASTM D 445-A
68	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Kinematic Viscosity @ 100°C	IS 1448 (Part 25)
69	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Kinematic Viscosity @ 100°C-Stabinger	ASTM D 7042
70	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Kinematic Viscosity @ 40°C	ASTM D 445
71	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Kinematic Viscosity @ 40°C	IS: 1448 (Part 25)
72	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Kinematic Viscosity @ 40°C-Stabinger	ASTM D 7042
73	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Low Temperature Pumping Viscosity @ (-) 40 Deg C / (-) 35 Deg C/ (-) 30 Deg C/ (-) 25 Deg C / (-) 20 Deg C / (-) 15 Deg C / (-) 10 Deg C	ASTM D 4684
74	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Particle Count (NAS 1638)	ISO 4406
75	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Phosphorous	ASTM D 6443
76	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Pour Point	ASTM D-97-b
77	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Pour Point	IS 1448 (Part 10): Sec II
78	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Pour Point	IS 1448 (Part 10): Sec II

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79	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Refractive Index (at 20°C, 40°C, 60°C)	ASTM D 1218
80	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Refractive Index (at 20°C, 40°C, 60°C)	ASTM D 1747
81	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	RPVOT Test(Rotating Pressure Vessel Oxidation Test)	ASTM D 2272-a
82	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Saponification Value	ASTM D-94
83	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Saponification Value	IS 1448 (Part 55)
84	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Sulphur	ASTM D 4927
85	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Sulphur	ASTM D 6443
86	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Thermal Stability @ 50°C	IS 1448 (Part 100)
87	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Thermal Stability @ O°C	IS 1448 (Part 100)
88	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Viscosity Index	ASTM D 2270-10
89	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Viscosity Index	IS 1448 (Part 56)
90	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Volatility Loss @150 Deg C, 2 hrs	IS 2664
91	CHEMICAL- LUBRICANTS	Automotive/ Marine Grade/ Specialties Lubricants	Wear Scar Diameter	ASTM D 4172
92	CHEMICAL- LUBRICANTS	Grease	Roll Stability	ASTM D 1831
93	CHEMICAL- LUBRICANTS	Grease	Wear Scar Diameter	ASTM D 2266
94	CHEMICAL- LUBRICANTS	Grease	Wheel Bearing : Slump	ASTM D 4290
95	CHEMICAL- LUBRICANTS	Grease	Wheel Bearing Leakage Tendency	ASTM D 4290
96	CHEMICAL- LUBRICANTS	Greases	Appearance	WIIMAZ/09 Issue No.5
97	CHEMICAL- LUBRICANTS	Greases	Copper Corrosion @ 100°C/24 hrs	IS 1448 (Part 51)
98	CHEMICAL- LUBRICANTS	Greases	4 Ball Weld Load	ASTM D 2596
99	CHEMICAL- LUBRICANTS	Greases	Colour	WIIMAZ/10 Issue No.4 Date of Issue 04 Aug.
100	CHEMICAL- LUBRICANTS	Greases	Consistency- Un Worked	ASTM D 217
101	CHEMICAL- LUBRICANTS	Greases	Consistency Unworked	IS 1448 (Part 60)
102	CHEMICAL- LUBRICANTS	Greases	Consistency- Worked 100,000 X	ASTM D - 217
103	CHEMICAL- LUBRICANTS	Greases	Consistency Worked 100000 X	IS 1448 (Part 60)
104	CHEMICAL- LUBRICANTS	Greases	Consistency Worked 60 X	ASTM D - 217

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105	CHEMICAL- LUBRICANTS	Greases	Consistency Worked 60 X	IS 1448 (Part 60)
106	CHEMICAL- LUBRICANTS	Greases	Copper Corrosion @ 100°C/24 hrs	ASTM D-4048
107	CHEMICAL- LUBRICANTS	Greases	Drop Point	1448 (Part 52)
108	CHEMICAL- LUBRICANTS	Greases	Drop Point	ASTM D 566
109	CHEMICAL- LUBRICANTS	Greases	Free Alkalinity as LiOH	IS 1448 (Part 53)
110	CHEMICAL- LUBRICANTS	Greases	Free Alkalinity as LiOH	ASTM D 128
111	CHEMICAL- LUBRICANTS	Greases	Free Org. Acidity as Oleic Acid	IS 1448 (Part 53)
112	CHEMICAL- LUBRICANTS	Greases	Free Org. Acidity as Oleic Acid	ASTM D 128
113	CHEMICAL- LUBRICANTS	Greases	Heat Stability at 100°c/30 hours, Oil Separation	ASTM D 6184
114	CHEMICAL- LUBRICANTS	Greases	Heat Stability at 100°c/30 hours, Oil Separation	IS 1448 (Part 89)
115	CHEMICAL- PETROLEUM AND PRODUCTS	FO	Ash Content	ASTM D 482
116	CHEMICAL- PETROLEUM AND PRODUCTS	FO	Ash Content	IS 1448 PART :4
117	CHEMICAL- PETROLEUM AND PRODUCTS	FO	Ash Content	ISO 6245
118	CHEMICAL- PETROLEUM AND PRODUCTS	FO	Density, 15°C	ASTM D 1298
119	CHEMICAL- PETROLEUM AND PRODUCTS	FO	Density, 15°C	IS 1448 (Part 16)
120	CHEMICAL- PETROLEUM AND PRODUCTS	FO	Density, 15°C	ISO 3675
121	CHEMICAL- PETROLEUM AND PRODUCTS	FO	Flash Point (PMCC)	ASTM D 92
122	CHEMICAL- PETROLEUM AND PRODUCTS	FO	Flash Point (PMCC)	IS 1448 (Part 21)
123	CHEMICAL- PETROLEUM AND PRODUCTS	FO	Flash Point (PMCC)	ISO 2719
124	CHEMICAL- PETROLEUM AND PRODUCTS	FO	Kinematic Viscosity ,@ 50°C	ASTM D 445
125	CHEMICAL- PETROLEUM AND PRODUCTS	FO	Kinematic Viscosity ,@ 50°C	IS 1448 PART :25

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126	CHEMICAL- PETROLEUM AND PRODUCTS	FO	Kinematic Viscosity ,@ 50°C	ISO 3104
127	CHEMICAL- PETROLEUM AND PRODUCTS	FO	Pour Point	ASTM D 97
128	CHEMICAL- PETROLEUM AND PRODUCTS	FO	Pour Point	IS 1448 :Part 10:sec 2
129	CHEMICAL- PETROLEUM AND PRODUCTS	FO	Pour Point	ISO 3016
130	CHEMICAL- PETROLEUM AND PRODUCTS	FO	Total Sediments -Potential	ISO 10307-2
131	CHEMICAL- PETROLEUM AND PRODUCTS	FO	Total Sulphur	ASTM D6443
132	CHEMICAL- PETROLEUM AND PRODUCTS	FO	Total Sulphur	ISO 14596
133	CHEMICAL- PETROLEUM AND PRODUCTS	FO	Water Content	ASTM D 95
134	CHEMICAL- PETROLEUM AND PRODUCTS	FO	Water Content	IS 1448 (Part 40)
135	CHEMICAL- PETROLEUM AND PRODUCTS	FO	Water Content	ISO 3733
136	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	2- furfural & other related compound content	IEC 61198
137	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Corrosive Sulphur	DIN 51353
138	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Interfacial Tension	ASTM D 971
139	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Metal Passivator	IS 13631
140	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Oxidation Stability: DDF at 90 Deg C	IS 12422 (Method C)
141	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Presence of Oxygen Inhibitor	IEC 60666
142	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Total Sulphur Content	ISO 14596
143	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	OIL Kinematic Viscosity @ 40 °C / -30 °C/ 0 °C	ISO 3104
144	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	2- furfural & other related compound content	IS 15668

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145	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Density @ 29.5 °C./ 20°C	IS 1448 (Part 16)
146	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Density @ 29.5 °C./ 20°C	ISO 12185
147	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Density @ 29.5 °C./ 20°C	ISO 3675
148	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Di Benzyl Di Sulphide	IEC 62697
149	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Di Benzyl Di Sulphide	IS 16497
150	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Dielectric Dissipation Factor (TAN DELTA) @ 90 °C	IEC 60247
151	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Dielectric Dissipation Factor (TAN DELTA) @ 90 °C	IS 16086
152	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Dielectric Dissipation Factor (TAN DELTA) @ 90 °C	IS 6262
153	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Dielectric Dissipation Factor (TAN DELTA) @ 90 °C	ISO 61620
154	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Electrical Strength (Breakdown Voltage)	IEC 60156
155	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Electrical Strength (Breakdown Voltage)	IS 6792
156	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Gassing Tendency	IEC 60628 Method A
157	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	INTERFACIAL TENSION	EN 14210
158	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Interfacial Tension	IS 6104
159	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Kinematic Viscosity ,@ 40 °C	IS 1448 PART 25
160	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Kinematic Viscosity @ 0°C/ -30 °C	IS 1448 : Part 25
161	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Metal Passivator	IEC 60666
162	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Oxidation Stability Total acidity	IEC 61125 :METHOD C
163	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Oxidation Stability Total acidity	IS 12422 (Method C)

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164	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Oxidation Stability: DDF at 90 Deg C	IEC 61125 :METHOD C
165	CHEMICAL- PETROLEUM AND PRODUCTS	Transformer Oil	Oxidation Stability: Sludge	IEC 61125 :METHOD C
166	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Oxidation Stability: Sludge	IS 12422 (Method C)
167	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Particle content	IEC 60970
168	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Particle content	IS 13236
169	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	PCA content	IP 346
170	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	PCB content	IEC 61619
171	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	PCB content	IS 16082
172	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	PMCC Flash Point	IS 1448 (Part 21)
173	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	PMCC Flash Point	ISO 2719
174	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Potentially corrosive Sulphur	IEC 62535
175	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Potentially corrosive Sulphur	IS 16310
176	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Pour Point	IS 1448 (Part 10)
177	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Pour Point	ISO 3016
178	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Presence of Oxygen Inhibitor	IS 13631
179	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Total Acidity	IEC 62021-1
180	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Water content	IEC 60814
181	CHEMICAL- PETROLEUM AND PRODUCTS	TRANSFORMER OIL	Water content	IS 13567