

Laboratory **Insulating Oil Testing Laboratory, Power Grid Corporation of India Limited (WR-II), 400/200KV Substation, Betul Road, Pathrota, Itarsi, Madhya Pradesh**

Accreditation Standard **ISO/IEC 17025: 2005**

Certificate Number **TC-7630**

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Validity **31.07.2018 to 30.07.2020**

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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ELECTRICAL TESTING

I.	ELECTRICAL MATERIALS - LIQUID DIELECTRIC MATERIALS			
1.	New Insulating Oil & Mineral Insulating Oil in Equipment	Dielectric Strength / Breakdown Voltage	IEC 60156	10.1 kV to 100 kV AC
		Water Content	IEC 60814	1 mg/kg to 1000 mg/kg
		Dielectric Dissipation Factor / Tan Delta	IEC 60247	0.00001 to 1
		Flash Point	ASTM 6450	30 °C to 250 °C
		Dissolved Gas Analysis H ₂ CH ₄ C ₂ H ₄ C ₂ H ₆ C ₂ H ₂ CO CO ₂ O ₂ N ₂	IEC 60567 ASTM D 3612 (Method C)	2 µl/l to 2000 µl/l 0.1 µl/l to 2000 µl/l 0.1 µl/l to 2000 µl/l 0.1 µl/l to 2000 µl/l 0.1 µl/l to 2000 µl/l 5 µl/l to 10000 µl/l 10 µl/l to 25000 µl/l 0.01 % to 10 % 0.01 % to 20 %
		Acidity Measurement	IEC 62021-1	(0.002 to 2) mgKOH/g
		Specific Resistance / Resistivity	IEC 60247	0.00001 to 10 ⁴ TΩ-cm
		Interfacial Tension	IS 6104 ASTM D 971-12	0.1 mN/m to 243.9 mN/m

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