

Laboratory **QC Laboratory, Lube Blending Plant, IOCL, 3, Graham Road, Budge Budge, Kolkata, West Bengal**

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

Certificate Number **TC-6353**

Page 1 of 2

Validity **27.09.2017 to 26.09.2019**

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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CHEMICAL TESTING

I.	LUBRICANTS			
1.	Lubricating Oils- Automotive Lubricants, Industrial Lubricants	Appearance	LBP-BGB-QC/SOP-22	Clear / Bright
		Moisture (Crackle)	LBP-BGB-QC/SOP-02	(Pass/Fail)
		Colour	LBP-BGB-QC/SOP-23	Red/Fluorescent
		Colour ASTM	IS 1448 (Part 12) ASTM D1500	0 to 8.0
		Density	IS 1448 (Part 16) ASTM D 1298	0.8000 gm/ml to 0.9500 gm/ml
		Density	ASTM D 4052	0.8000 gm/ml to 0.9500 gm/ml
		Flash Point (COC)	IS 1448 (Part 69) ASTM D92	60 °C to 400 °C
		Kinematic Viscosity	IS 1448 (Part 25) ASTM D 445	2 cSt to 1400 cSt
		Viscosity Index	IS1448 (Part 56) ASTM D2270	0 to 300
		Total Base Number (TBN)	LBP-BGB-QC/SOP-10	1 mg KOH/gm to 100 mg KOH/gm
		Total Base Number (TBN)	ASTM D 974	1 mg KOH/gm to 100.0 mg KOH/gm
		Acid Number by Color-indicator Titration	ASTM D 974	0 mg KOH/gm to 20 mg KOH/gm
		Cold Cranking Simulator (CCS)	ASTM D 5293	3000 mpa.s to 11000 mpa.s
		Brookfield Viscosity	ASTM D-2983	5000 cP to 150000 cP
		Pour Point	IS 1448 (Part 10 & Sec 2) ASTM D 97	20°C to -42 °C
		Foaming Characteristics	IS 1448 (Part 67) ASTM D892	0 to 50 ml
		Emulsion Characteristics	ASTM D1401	0 to 30 min

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		Emulsion Stability Test	LBP-BGB-QC/SOP-15	(Pass/Fail)
		Calcium XRF (ED)	ASTM D-6481	0.0010 % to 0.5000 %
		Zinc XRF (ED)	ASTM D-6481	0.0010 % to 0.5000 %
		Sulfated Ash	ASTM D 874	0.05 % wt to 10 % wt
		Cu Strip Corrosion	IS 1448(Part15) ASTM D130	1 a to 4 c
		National Aerospace Standard (NAS) value	ISO 4407	05 microns to 1024 microns
		National Aerospace Standard (NAS) value	ISO 4406	01 Class to 12 Class
		Saponification value	IS 1448 (Part 60)	0.1 mg KOH/gm to 200 mg KOH/gm

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