

Laboratory	Hindustan Petroleum Corporation Limited, Silvassa QC Laboratory, Silvassa Lube Plant, HPCL Lube Oil Blending Plant, Village Kherdi, Khanvel-Udhva Road, Silvassa, Dadra and Nagar Haveli		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	04.01.2016
Certificate Number	T-1693	Valid Until	03.01.2018
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S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I.	PETROLEUM PRODUCTS			
1.	Automotive Petrol & Diesel Engine Oils/ Automotive Gear Oils /Marine Grades/Industrial Grades/Specialty Grades	Density @ 29.5 °C	ASTM D 1298 (2012-b) / IS 1448 (Part 16): 2014	800.0 kg/m ³ to 1100.0 kg/m ³
		Kinematic Viscosity Test @ 40 °C	ASTM D 445 (2015)/ IS 1448 (Part 25): 1976 (RA 2007)	4 cSt to 550 cSt
		Kinematic Viscosity Test @ 100 °C	ASTM D 445 (2015)/ IS 1448 (Part 25): 1976 (RA 2007)	4 cSt to 50 cSt
		Viscosity Index	ASTM D-2270 (2010e1) / IS 1448 (Part 56): 2013	40 to 300
		Flash Point , COC	ASTM D 92 (2012 b)/ IS 1448 (Part 69): 2013	150 °C to 300 °C
2.	Automotive Petrol & Diesel Engine Oils/ Automotive Gear Oils /Marine Grades/Industrial Grades	Pour Point	ASTM D-97 (2012 b)/ IS 1448 (Part 10): 2013	0 °C to (-) 60 °C
3.	Automotive Petrol & Diesel Engine Oils/Marine Grades/ Industrial Grades	Zinc	ASTM D 6443 (2014)	0.01 % to 0.30 % Wt.

**Rini Narayan
Convenor**

**N. Venkateswaran
Program Manager**

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4.	Automotive Gear Oils /Marine Grades/Industrial Grades	Foaming Tendency (Sequence I, II & III)	ASTM D 892 (2013)/ IS 1448 (Part 67): 2004 (RA 2008)	0 to 300 ml
5.	Automotive Gear Oils /Industrial Grades/Specialty Grades	Total Acidity, (TAN)	ASTM D-974: 2014e1 / IS 1448 (Part 2): 2007	(0.01 mg KOH to 5.0 mg KOH)/g
6.	Industrial Grades/ Specialty Grades	Aniline Point	ASTM D-611(2012)/ IS 1448 (Part 3): 2007	50 °C to 120 °C
		Saponification Value	ASTM D 94: 2007 (2012e)1 / IS 1448 (Part 55): 2004	(0.5 mg KOH to 10.0 mg KOH)/g
7.	Automotive Petrol & Diesel Engine Oils/ Marine Grades	Calcium	ASTM D 6443 (2014)	0.01 % to 0.5 % Wt
8.	Automotive Gear Oils / Industrial Grades	Phosphorous	ASTM D 6443 (2014)	0.01 % to 0.5 % Wt
9.	Automotive Petrol & Diesel Engine Oils	Ash (Sulphated) Content	ASTM D-874 (2013 a) / IS 1448 (Part 4): 2008	0.05 % to 2.0 % Wt.
		Flash Point, PMCC	ASTM D-93(2012) / IS 1448 (Part 21): 2012	60 °C to 190 °C
		TBN	ASTM D-2896 (2011)/ IS 1448 (Part 86): 1977 (RA 2006)	(4.0 mg KOH to 21 mg KOH)/g

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	Automotive Petrol & Diesel Engine Oils	Cold Cranking Simulator	ASTM D 5293 (2015)	3000 cP to 12000 cP
10.	Industrial Grades	Rust Test	ASTM D 665 (2014e1)/ IS 1448 (Part 96): 1980 (RA 2003)	Qualitative (Pass/Fail)
		Emulsion Characteristic @54 °C/ 82 °C	ASTM D-1401(2012)	upto 80 ml
11.	Specialty Grades	Acidity Inorganic	IS 1448 (Part 2): 2007	up to 0.05 mg KOH/g
		Evaporation Loss	ASTM D-972: 02 (2008)	upto 1.0 %
		Colour	ASTM D 1500 (2012)/ IS 1448 (Part 12): 2013	0.5 unit to 8.0 unit

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