



NABL

National Accreditation Board for Testing and Calibration Laboratories

(An Autonomous Body under Department of Science & Technology, Govt. of India)

CERTIFICATE OF ACCREDITATION

AVANTHA CENTRE FOR INDUSTRIAL RESEARCH & DEVELOPMENT

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2005

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

for its facilities at

Paper Mill Campus, Yamuna Nagar, Haryana

in the discipline of

CHEMICAL TESTING

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Certificate Number T-3078
Issue Date 22/08/2016




Valid Until 21/08/2018

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the additional requirements of NABL.

Signed for and on behalf of NABL


N. Venkateswaran
Program Manager


Anil Relia
Director


Prof. S. K. Joshi
Chairman



NABL

SCOPE OF ACCREDITATION

Laboratory	Avantha Centre for Industrial Research & Development, Paper Mill Campus, Yamuna Nagar, Haryana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	22.08.2016
Certificate Number	T-3078	Valid Until	21.08.2018
Last Amended on	29.09.2016	Page	1 of 5

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I. POLLUTION & ENVIRONMENT				
1.	Waste/Effluent Water	pH	IS 3025 (Part 11): 1983 (RA 2012) Rev. 1 Electrometric Method	1 to 13
		Temperature	IS 3025 (Part 9): 1984 (RA 2012) Rev. 1	10 °C to 70 °C
		Total Solids	IS 3025 (Part 15): 1984 (RA 2009) Rev. 1, Amd. 1	20 mg/l to 2500 mg/l
		Total Suspended Solids	IS 3025 (Part 17): 1984 (RA 2012) Rev. 1, Amd. 1	20 mg/l to 2500 mg/l
		Total Dissolved Solids	IS 3025 (Part 16): 1984 (RA 2012) Rev. 1, Amd. 1	25 mg/l to 2500 mg/l
		Chemical Oxygen Demand	IS 3025 (Part 58): 2006 (RA 2012) Rev. 1	10 mg/l to 900 mg/l
		Biochemical Oxygen Demand (BOD) 3 Days at 27 °C	IS 3025 (Part 44): 1993 (RA 2009) Rev. 1, Amd. 1	2 mg/l to 400 mg/l
		Sulphate	IS 3025 (Part 24): 1986 (RA 2009) Rev. 1 Gravimetric Method	50 mg/l to 1000 mg/l
		Chloride	IS 3025 (Part 32): 1988 Reprint 2010 Argentometric Method	20 mg/l to 3000 mg/l
		Acidity	IS 3025 (Part 22): 1986 (RA 2009) Rev. 1	20 mg/l to 500 mg/l

Gaurav Saini
Convenor

N. Venkateswaran
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	Waste/Effluent Water	Alkalinity	IS 3025 (Part 23): 1986 Rev. 1, Amd. 2 Reprint 2010	20 mg/l to 500 mg/l
		Total Hardness	IS 3025 (Part 21): 2009 Rev. 2, EDTA Method	20 mg/l to 500 mg/l
		Total Chromium	APHA (22 nd Edition) Method 3111 B: 2012	0.5 mg/l to 25 mg/l
		Na	APHA (22 nd Edition) Method 3111 B: 2012	1 mg/l to 1000 mg/l
		K	APHA (22 nd Edition) Method 3111 B: 2012	1 mg/l to 600 mg/l
		Mg	APHA (22 nd Edition) Method 3111 B: 2012	0.1 mg/l to 560 mg/l
		Mn	APHA (22 nd Edition) Method 3111 B: 2012	0.6 mg/l to 66 mg/l
		Fe	APHA (22 nd Edition) Method 3111 B: 2012	0.5 mg/l to 176 mg/l
		Co	APHA (22 nd Edition) Method 3111 B: 2012	0.5 mg/l to 27 mg/l
		Ni	APHA (22 nd Edition) Method 3111 B: 2012	0.05 mg/l to 378 mg/l
		Cu	APHA (22 nd Edition) Method 3111 B: 2012	0.5 mg/l to 126 mg/l
		Zn	APHA (22 nd Edition) Method 3111 B: 2012	2.0 mg/l to 8750 mg/l

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	Waste/Effluent Water	Cd	APHA (22 nd Edition) Method 3111 B; 2012	0.25 mg/l to 537.5 mg/l
		Pb	APHA (22 nd Edition) Method 3111 B; 2012	0.05 mg/l to 70 mg/l
		Al	APHA (22 nd Edition) Method 3111 B; 2012	0.5 mg/l to 330 mg/l
		Ca	APHA (22 nd Edition) Method 3111 B; 2012	0.5 mg/l to 600 mg/l
		Colour	APHA (22 nd Edition) Method 2120 C; 2012	5 Pt-Co to 500 Pt-Co
		Adsorbable Organic Halogen (AOX)	ISO 9562: 2004	0.2 mg/l to 100 mg/l
		Oil & Grease	APHA (22 nd Edition) Method 5520 B; 2012	5 mg/l to 400 mg/l
		Hexavalent Chromium	APHA (22 nd Edition) Method 3500 B; 2012	0.1 mg/l to 10 mg/l
		Phenol	APHA (22 nd Edition) Method 5530D; 2012	1 mg/l to 10 mg/l
		Sodium Adsorption Ratio (SAR)	APHA (22 nd Edition) Method 3111 B; 2012	1 to 30
II. PAPER AND PULP				
1.	Pulp & Paper	Ash	Tappi T 211 om-12	0.1 % to 60 %
		Moisture	IS 1060 (Part 1): 1966 (RA 2014)	0.1 % to 60 %

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	Pulp & Paper	Grammage	IS 1060 (Part 1): 1966 (RA 2014)	5 g/m ² to 500 g/m ²
		Brightness	IS 1060 (Part 2): 1960 (RA 2014)	20 % to 100 %
		Opacity	IS 1060 (Part 1): 1966 (RA 2014)	5 % to 100 %
		pH of Paper	IS 1060 (Part 1): 1966 (RA 2014)	3 to 12
		Water Penetration (Cobb Test)	IS 1060 (Part 1): 1966 (RA 2014)	5 g/m ² to 200 g/m ²
		Wax Pick Number	IS 1060 (Part 3): 1969 (RA 2014)	2 A to 26 A No.
III. ATMOSPHERIC POLLUTION				
1.	Ambient Air	Nitrogen Dioxide	IS 5182 (Part 6): 2006 (RA 2012)	4 µg/m ³ to 300 µg/m ³
		Sulphur Dioxide	IS 5182 (Part 2): 2001 (RA 2012)	5 µg/m ³ to 1050 µg/m ³
		Suspended Particulate Matter (SPM)	IS 5182 (Part 4): 1999 (RA 2010)	20 µg/m ³ to 5000 µg/m ³
		Respirable Suspended Particulate Matter (PM10)	IS 5182 (Part 23): 2006 (RA 2012)	20 µg/m ³ to 5000 µg/m ³
		Particulate Matter (PM2.5)	CPCB guidelines and In-house method	10 µg/m ³ to 500 µg/m ³

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	Ambient Air	Pb	CPCB guidelines and In-house method	0.05 $\mu\text{g}/\text{m}^3$ to 10 $\mu\text{g}/\text{m}^3$
		Carbon Monoxide (CO)	IS 5182 (Part 10): 1999 (RA 2009) (NDIR)	1 mg/m^3 to 125 mg/m^3
2.	Emission from Stationary Sources	Particulate Matter (PM)	IS 11255(Part 1): 1985 (RA 2009)	10 mg/Nm^3 to 10000 mg/Nm^3
		Sulphur Dioxide	IS 11255 (Part 2): 1985, 2009 Electrochemical, FGA, UK	4 mg/Nm^3 to 5000 mg/Nm^3
		Oxides of Nitrogen	IS 11255 (Part 7): 2005, (RA 2012), Amd. 1: 2015 Electrochemical, FGA, UK	10 mg/Nm^3 to 5000 mg/Nm^3
		Carbon Dioxide	Electrochemical, FGA, UK	1 % to 20 %

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