



National Building Material & Steel Testing Laboratory



LABORATORY

For Metallurgical & Civil Engineering Testing

National Building Material & Steel Testing Laboratory

- Established in 2016. A single reputed centre for any civil engineering assignment in areas of

- ✓ Quality assurance
- ✓ Geotechnical Investigation
- ✓ Building Material's Testing
- ✓ Non – Destructive Testing
- ✓ Steel Testing

- Strong Technical back up with a penchant to draw solutions which are economically viable has made NBML a first source of contact for civil works related service

- Handled variegated projects servicing government bodies, public sector enterprises, MNCs, large public and private sector units.



OUR OBJECTIVES

Laboratory management shall implement the international standard ISO/IEC 17025:2017 and the requirement of accreditation authority

The lab management shall maintain strict internal quality control according to guidelines laid down in the international std ISO/IEC 17025:2017.

All personnel involved in testing shall be familiarized with quality documentation and its implementation in their respective field by effective training.

Total customer focus & satisfaction by communicating with them more effectively, adhering to strict time schedule of completion of jobs & reporting results.

QUALITY AUDIT

A Quality Audit is a structured review of quality management activities. Its objective is to identify measures that can improve performance of the Current project quality or that of other projects. Quality Audit is necessary to stimulate and maintain unending improvements in team performance and product quality. In particular, audit should focus on the project defined quality standards. Quality Audits may be scheduled or random, and they may be carried out by properly trained in-house auditors or by registered third parties such as quality system agencies.



QUALITY CONTROLS

- ▶ Latest equipments and techniques are applied which are generally not available in other test centers.
- ▶ All type of Soil Testing, Concrete Testing etc.
- ▶ Computerised Steel testing provides results in a graphic format and in digital form.
- ▶ Bitumen Testing.
- ▶ Paints Testing
- ▶ Non Destructive Testing Includes Rebound Hammer Test, Ultra Pulse Velocity Test.

SPECIALISATION

GEOTECHNICAL INVESTIGATION

This activity performed by geotechnical engineers is to obtain information on the physical properties of soil and rock by proper concerning test by the expertise of NBML staff.



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SPECIALISATION

MECHANICAL TESTING

This activity performed by engineers is to obtain information on the physical properties of steel by proper concerning test by the expertise of NBML staff.



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SPECIALISATION

PAINT TESTING

This activity performed by engineers is to obtain information on the Chemical properties of paint by proper concerning test by the expertise of NBML staff.



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SOME OF IMPORTANT FIELD TESTING

● PAINT TESTING

- ✓ Calyx Rotary Drilling
- ✓ Standard Penetration Test (SPT)
- ✓ Dynamic Cone Penetration Test (DCPT)
- ✓ Plate Load Test
- ✓ California Bearing Ratio Test (CBR)
- ✓ Pile Load Test
- ✓ Ultrasonic testing
- ✓ DPT testing



LABORATORY TESTING

We have almost each and every type of laboratory equipments in laboratory for the different type of testing.

We are having

SOIL LABORATORY

MATERIAL TESTING LABORATORY

CONCRETE LABORATORY

BITUMEN LABORATORY

STEEL TESTING LABORATORY

CHEMICAL TESTING LABORATORY
(Metal testing & Paint Section)

LABORATORY TESTING

● OVER VIEW OF SOIL LAB

- ✓ Set of Sieves
- ✓ Hydrometer analysis
- ✓ Swell Pressure Unit
- ✓ Direct Shear Test
- ✓ Consolidated Test Apparatuses
- ✓ Unconfined Compressive Test
- ✓ Ultrasonic testing
- ✓ Permeability Test (Laboratory)
- ✓ CBR Test (Laboratory)
- ✓ Atterberg's Limit
- ✓ Proctor / Modified Proctor Test



SOME OF IMPORTANT TESTING

MECHANICAL TESTING

- Ultimate Tensile Strength Test
- Bend Test
- Rebend Test
- High tensile Nut & bolt.

NON DESTRUCTIVE TESTING

Dye penetrant inspection (DP), also called liquid penetrate inspection (LPI) or penetrant testing (PT), is a widely applied and low-cost inspection method used to check surface-breaking defects in all non-porous materials (metals, plastics, or ceramics).

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NON DESTRUCTIVE TESTING

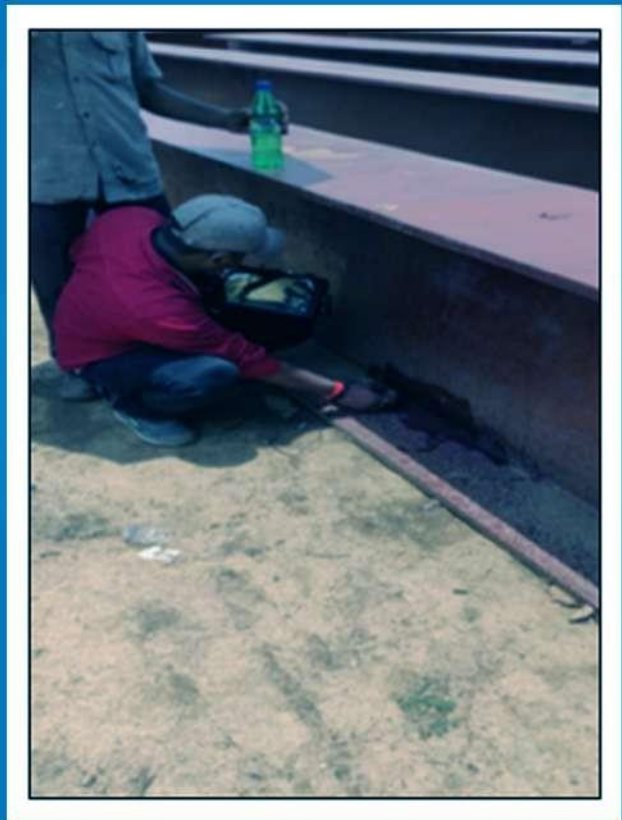
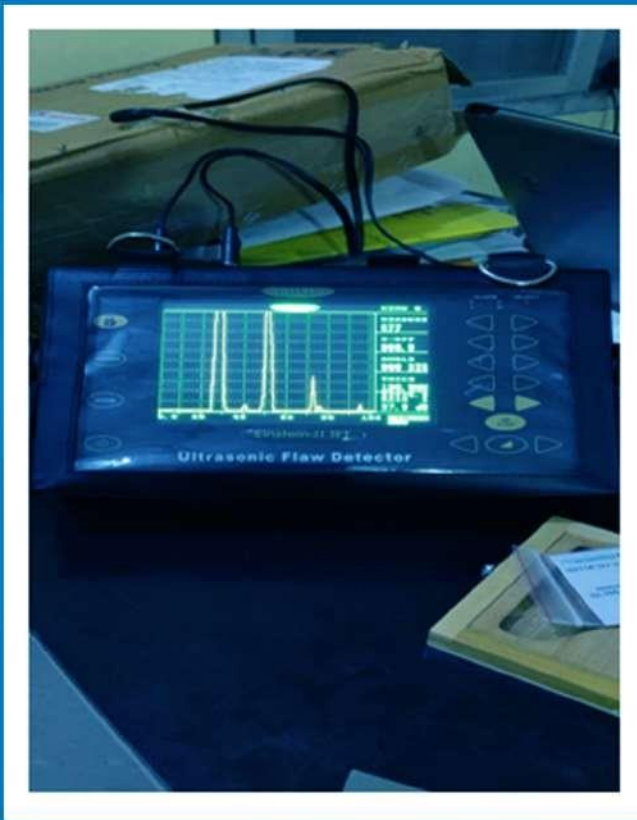
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SOME OF IMPORTANT TESTING

NON DESTRUCTIVE TESTING

Ultrasonic testing is based on the capture and quantification of either the reflected waves (pulse-echo) or the transmitted waves (through-transmission).



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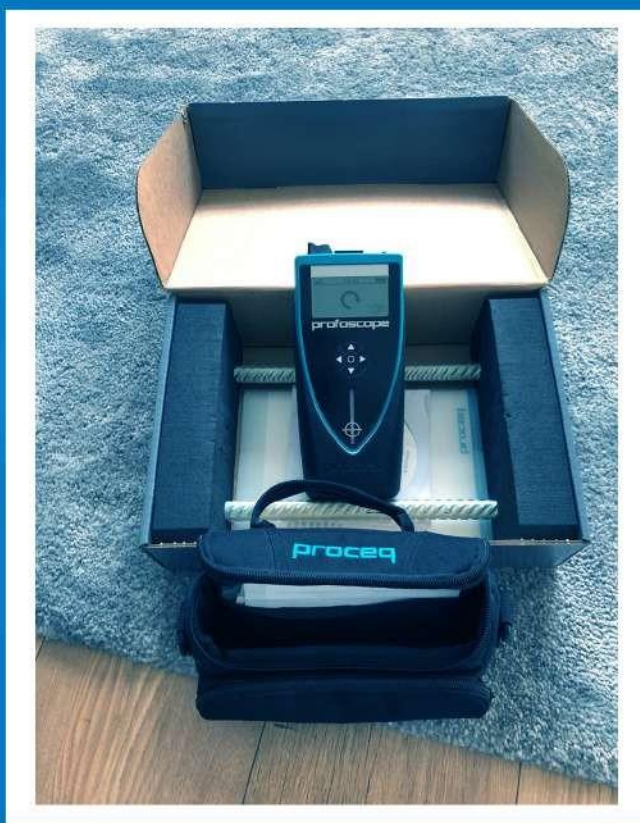
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SOME OF IMPORTANT TESTING

PROFOSCOPE REBAR LOCATOR

The Profoscope+ Rebar Locators/Cover Meters by Proceq are versatile, fully-integrated rebar detectors and cover meters with detection capabilities to a maximum depth of 7in (180mm).



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LABORATORY TESTING

AGGREGATE



- ✓ Particle Size Analysis
- ✓ Impact Test
- ✓ Crushing and Abrasion Test
- ✓ FI & EI Test
- ✓ Water absorption & specific Gravity
- ✓ 10% fine value

The sample splitters for fine & coarse aggregates



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LABORATORY TESTING

OVERVIEW OF MATERIAL TESTING LABORATORY



- Bricks
 - ☑ Compressive Strength
 - ☑ Dimension Test
 - ☑ Water Absorption
 - ☑ Efflorescence Test

- Concrete Block
 - ☑ Compressive Strength
 - ☑ Water Absorption

- Building Stone
 - ☑ Compressive Strength
 - ☑ Abrasion Test



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LABORATORY TESTING

OVERVIEW OF PAINT TESTING LABORATORY



- Paint Testing
 - ✓ Red oxide primer testing
 - ✓ All paint testing
 - ✓ Enamels paints testing
 - ✓ Zinc chromate paint & Pigments testing



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LABORATORY TESTING

OVERVIEW OF CONCRETE & BITUMEN TESTING LABORATORY



- Cement
 - ✓ Fineness, Consistency
 - ✓ Setting Time
 - ✓ Soundness by autoclave & Le chatelier
 - ✓ Compressive Strength
- Concrete
 - ✓ Mix Design by mixture (Elect.)
 - ✓ Compression Testing Machine(2000 KN)
 - ✓ Core Cutting Machine
- Concrete
 - ✓ Flow meter
 - ✓ Ductility

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LABORATORY TESTING

OVERVIEW OF UNIVERSAL TESTING MACHINE



- Steel Universal Testing Machine (1000KN)

- ✓ Tensile testing
- ✓ % UTS
- ✓ % Ys
- ✓ % E
- ✓ % RA
- ✓ Bend Test
- ✓ Rebend Test
- ✓ Fracture Test

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NON DESTRUCTIVE TESTING

OVERVIEW OF NDT TESTING PHOTOS



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LABORATORY TESTING

OVERVIEW OF CHEMICAL ANALYSIS LABORATORY

We are the first independent lab in the region to use latest Optical Emission Spectrometer for Chemical Analysis of steel. Besides setting high standard for accuracy of result it is also cost effective and consume very less time compare to traditional wet analysis method.

Spectrometer analysis of elements like C,Si,Mn,P,S,Cr,Ni,Mo,Ti,Vetc can be know & high accuracy is ascertained with the use International Certified Reference Material.



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GEOTECHNICAL INVESTIGATION

OVERVIEW OF SITE WORK

- Hind Himcon Associates has allotted the work for Construction of Pradhan Mantri Awas Yojna EWS unit.
- Manufacturing, Supplying, Laying heavy duty M-50CC Blocks at MMLP Naya Raipur Work order by M/S RITES LTD.
- Manufacturing, Supplying, Laying heavy duty M-50CC Blocks at MMLP Naya Raipur Work order by M/S RITES LTD.
- Work of alignment for Nagpur Metro Rail System for Nagpur Metro Rail Corporation Limited (NMRCL).
- Geo investigation at STP -4 Kuahra village Near L & T power house Naya Raipur for Enviro Infra Engineers Ltd.
- Work for MSC LTD Durg.(Testing)
- Testing for manufacturing, supplying, laying heavy duty M-50 blocks at MMLP Raipur (CG).
- Worked with Nagar Palika Nigam Bhilai, Nagar Palika Nigam Birgoan, Bhilai Steel Plant, Nagar Palika Nigam Durg.

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OUR CLIENT

LIST OF SOME OF THE MAJOR COMPANY
WHO USES OUR FACILITY FOR TESTING INCLUDES



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NATIONAL BUILDING MATERIAL TESTING LAB

Raipur-Bilaspur road, Urkura Chouk

Rawabhata Village Raipur-493221 (C.G.)

Phone : (+91) 9285284469, 9993493802

Email : nbmtl2017@gmail.com

www.nbmtlab.com



National Accreditation Board for
Testing and Calibration Laboratories

CERTIFICATE OF ACCREDITATION

NATIONAL BUILDING MATERIAL LAB

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

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

for its facilities at

RAIPUR-BILASPUR ROAD, URKURA CHOWK, URKURA NAGAR, RAIPUR, CHHATTISGARH, INDIA

in the field of
TESTING

Certificate Number: TC-7769

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.
(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Identity: NATIONAL BUILDING MATERIAL LAB

Signed for and on behalf of NABL



N. Venkateswaran
N. Venkateswaran
Chief Executive Officer



Certificate of Registration

NATIONAL BUILDING MATERIAL & STEEL'S TESTING LABORATORY

URKURA NAGAR AKSASHWANI RADIO ST. RAWABHATA, RAIPUR -493221, CHHATTISGARH, INDIA

has been assessed and Certified by Otabu Certification Pvt. Ltd.
as meeting the requirements of:

ISO 9001:2015
Quality Management System

For the following scope of activities:

PROVIDING OF BUILDING MATERIAL, GEO INVESTIGATION, STEEL TESTING,
NON - DESTRUCTIVE CONCRETE & STEEL TESTING (NDT)

Issue No : 01
Date of Certification: 17 September 2020
1st Surveillance Due: 16 September 2021

Revision No () : NA
2nd Surveillance Due: 16 September 2022
Certificate Expiry: 16 September 2023
(Subject to the company maintaining its system to the required standard)

Certificate No:- 0917Q101320
To Verify this Certificate please visit at www.otabucert.com



Dr. Anita Gupta
Dr. Anita Gupta
(Managing Director)

*Validity of the certificate is subject to successful completion of surveillance audit on or before due date (in case surveillance audit is not allowed to be conducted, this certificate shall be suspended/withdrawal). *This Certificate of Registration remains the Property of Otabu Certification Pvt. Ltd. and shall be returned immediately upon request.

Otabu Certification Pvt. Ltd., RZ-9 (Ground Floor), Prem Nagar, Uttam Nagar, New Delhi-110059 (India)

Email:- info@otabucert.com website:-www.otabucert.com



Certificate of Registration

NATIONAL BUILDING MATERIAL & STEEL'S TESTING LABORATORY

URKURA NAGAR AKSASHWANI RADIO ST. RAWABHATA, RAIPUR -493221, CHHATTISGARH, INDIA

has been assessed and Certified by Otabu Certification Pvt. Ltd.
as meeting the requirements of:

ISO 45001:2018
Occupational Health & Safety Management System

For the following scope of activities:

PROVIDING OF BUILDING MATERIAL, GEO INVESTIGATION, STEEL TESTING,
NON - DESTRUCTIVE CONCRETE & STEEL TESTING (NDT)

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1st Surveillance Due: 16 September 2021

Revision No () : NA
2nd Surveillance Due: 16 September 2022
Certificate Expiry: 16 September 2023
(Subject to the company maintaining its system to the required standard)

Certificate No:- 0917O101520
To Verify this Certificate please visit at www.otabucert.com



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Dr. Anita Gupta
(Managing Director)

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as meeting the requirements of:

ISO 14001:2015
Environmental Management System

For the following scope of activities:

PROVIDING OF BUILDING MATERIAL, GEO INVESTIGATION, STEEL TESTING,
NON - DESTRUCTIVE CONCRETE & STEEL TESTING (NDT)

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Revision No () : NA
2nd Surveillance Due: 16 September 2022
Certificate Expiry: 16 September 2023
(Subject to the company maintaining its system to the required standard)

Certificate No:- 0917E101420
To Verify this Certificate please visit at www.otabucert.com



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