

Working Towards Setting Up A Laboratory With Accreditation From The National Accreditation Board For Testing And Calibration Laboratories (NABL), For Aaksh Beverages Private Limited, Mumbai, India

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Abstract

This project focuses on establishing a NABL-accredited laboratory at Aaksh Beverages Private Limited, Mumbai, India. This is a crucial action in bolstering the firm's multinational credibility in the instant coffee market. The endeavour strives to build a technically competent testing establishment that assures product quality, safety, and compliance with global norms and standards, particularly for exports to Europe, the Middle East, the Gulf, and Africa.

Under the mentorship of Mr Somasundaran Ganeshan (Quality Head) and in collaboration with AAVA Project & Design Solutions and Ari Enterprises Pvt. Ltd., I took part in the preliminary phases of lab design, tool selection, and documentation planning. My function involved assisting in aligning the lab layout with NABL ISO/IEC 17025:2017 prerequisites, recognizing pivotal analytical supplies like spectrophotometers, moisture analyzers, and stability chambers, and contributing to the drafting of Standard Operating Procedures (SOPs) and the Quality Management System (QMS).

The proposed laboratory will conduct an expansive spectrum of analyses—physical, chemical, and microbiological—ensuring that every pack of coffee meets both FSSAI and global safety criteria. The team is presently formulating the documentation for NABL registration, with accreditation expected by January 2026.

Establishing this laboratory is more than a regulatory effort; it depicts Aaksh Beverages' devotion to transparency, technological distinction, and consumer loyalty, paving the path for robust multinational alliances and long-term expansion.

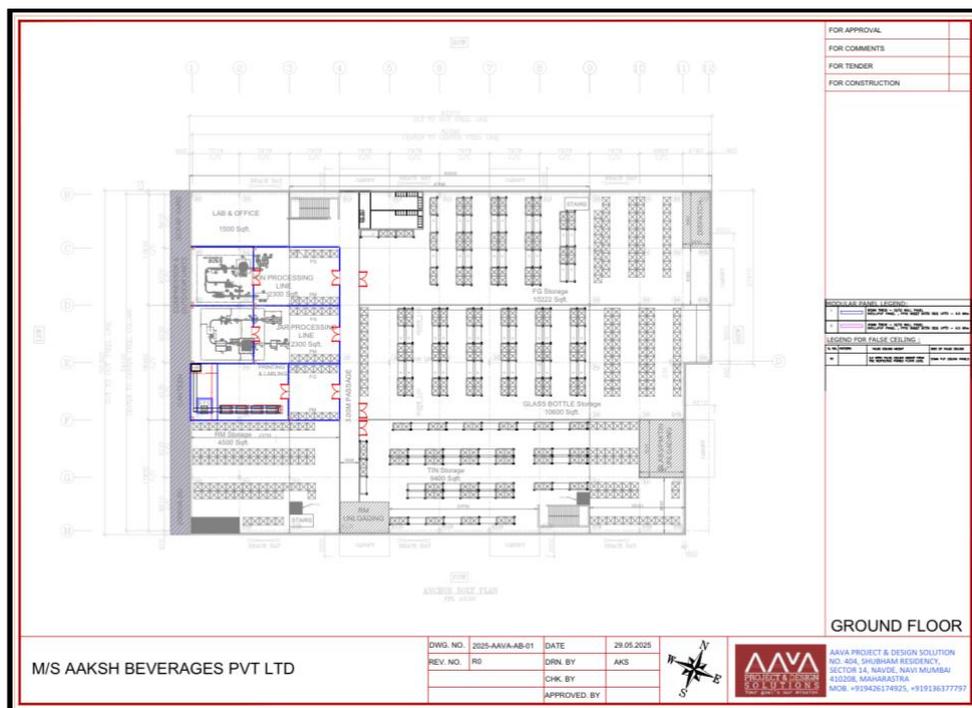
Opening Statement

Aaksh Beverages Private Limited is establishing a laboratory with accreditation from the National Accreditation Board for Testing and Calibration Laboratories (NABL). This is a critical step for the firm that is involved in blending and packaging of Instant coffee for its International buyers in Europe, the Middle East, the Gulf Countries and the African region; seeking to ensure product quality, regulatory compliance, and customer trust.

NABL accreditation is a mark of technical competence and reliability, particularly important in the food and beverage sector where safety and quality are paramount. This is considered an important step for Aaksh Beverages Pvt. Ltd. for its growth internationally, where NABL-approved product certifications create trust among customers in retail chain stores, supermarkets and cash & carry businesses.

1. Understanding NABL Accreditation

NABL is an autonomous body under the Quality Council of India (QCI) that provides accreditation to laboratories in accordance with ISO/IEC 17025:2017 standards. This accreditation assures that the laboratory operates competently and generates valid results, thereby promoting confidence in products domestically and internationally.



Factory layout incorporating lab design

2. Identifying Laboratory Scope and Requirements

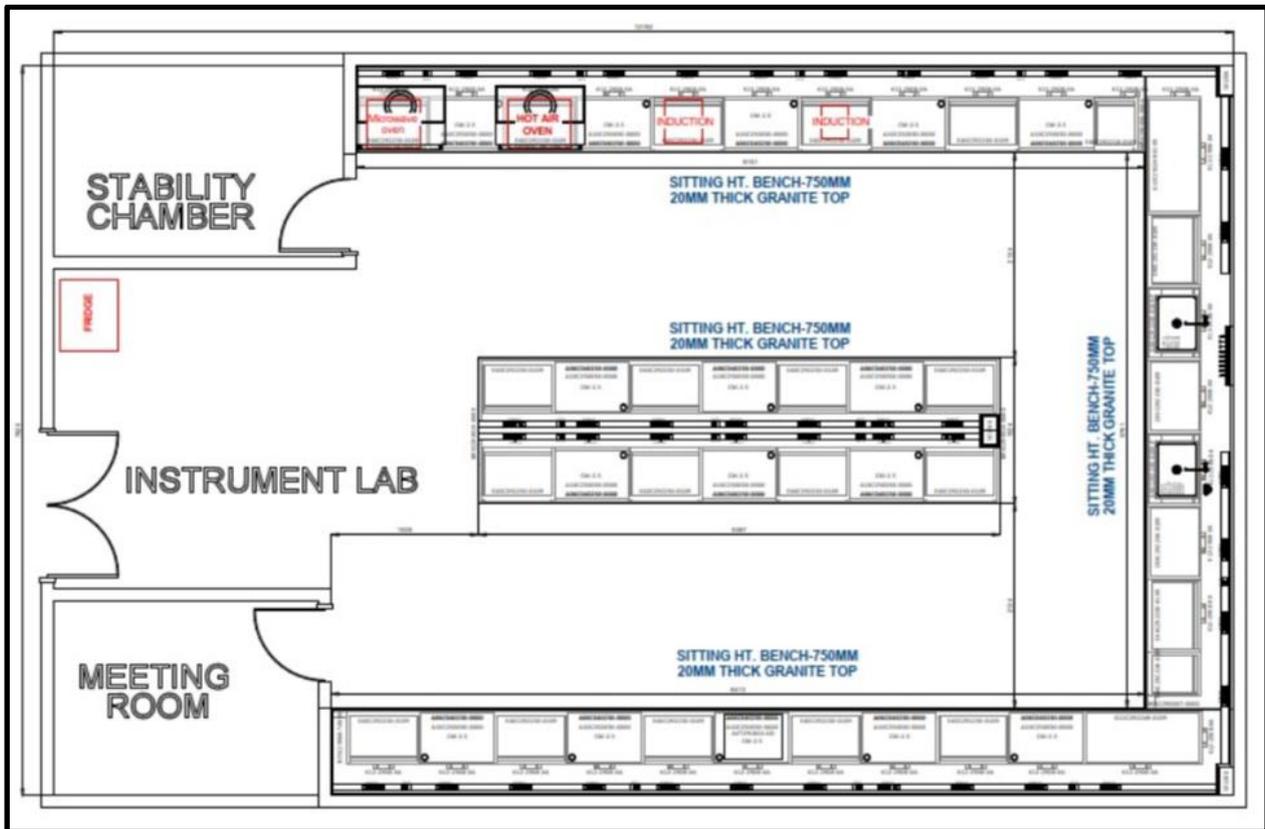
For an instant coffee packing, the laboratory's primary role is to ensure the quality and safety of coffee products. The scope of testing includes:

- Physical parameters (moisture, particle size, solubility)
- Chemical parameters (caffeine content, pH, acidity, ash content)
- Microbiological tests (total plate count, yeast and mould, coliforms)
- Packaging material analysis (migration studies, seal integrity)

3. Infrastructure and Facility Planning

I am involved with Aaksh quality head Mr Somasundaran Ganeshan (Email – ppnc@aaksh.com) to make a well-designed laboratory layout for efficient workflow and safety. Consider the following as my prospective role and current inputs provided:

- Designing and identifying separate areas for sample receipt, preparation, analysis, and storage – I have coordinated with Industrial Consulting firm AAVA Project & Design Solutions, Director Mr Avinash Chandel (Email id – aavaproject13@gmail.com) and team of Aaksh to make an initial design layout as per NABL lab criteria and guidelines
- Controlled environment for analyses (e.g., temperature and humidity control) – Aaksh already have infrastructure to create an atmosphere suite for carrying out all analyses mentioned in point 2 (Like the Rotary base Dehumidification system based on the Japanese technology supplier)
- Provision for waste disposal and management as per environmental norms – I have coordinated with the Safety Officer and the local Grampanchyat Vehle, Thane District for arranging the required system for carrying out the above activity.
- Safety equipment (fire extinguishers, eye wash stations, PPE) – Industrial consultants have designed the factory by covering all required parameters for the safety of the factory, manpower as well as providing sufficient infrastructure for the upcoming Lab.



Lab floor plan

4. Procurement of Equipment and Reference Materials

I was part of the team of Aaksh Beverages Pvt. Ltd. to list the items required as per the Lab Consultant Company Mr. Amol Choudhari, Ari Enterprises Pvt. Ltd. (Email id – info.arienterprises@gmail.com) to select instruments and equipment that meet the requirements of the intended tests and are compliant with national/international standards. Some of these examples include the following:

- Moisture analysers
- Spectrophotometers
- pH meters
- Autoclaves and incubators for microbiology
- Analytical balances
- Reference standards and certified reference materials



Autoclave and incubators for microbiology



Moisture analyser



Spectrophotometer

5. Staffing and Training

The Lab consultants have been guiding the Aaksh factory and the Lab Head to make guidelines SOP on recruiting qualified personnel with backgrounds in food science, microbiology, or chemistry. As per NABL requires the laboratory staff are adequately trained and competent to carry out assigned tasks. The same task was in process along with the team to make a detailed SOP for the NABL lab.

6. Establishing Quality Management System (QMS)

Implementing a QMS in line with ISO/IEC 17025:2017, including: while drafting SOP following points have been considered to keep the lab status and requirements of overseas clients to review documents while inspecting the lab.

- Documented procedures for all tests and calibrations
- Internal audits and management reviews
- Maintenance and control of records and documents for verification by a third party

- Complaint handling and corrective actions records and updating to the factory head
- Participation in proficiency testing programmes reports

7. Validation and Verification of Methods

As per SOP and Lab consultant guidelines, all analytical methods have been validated or verified to ensure accuracy, precision, and reliability. By use of recognised standard methods (e.g., BIS, ISO, AOAC) wherever possible, and document all validation achieved by periodic review from third-party independent authorities.

8. Application and Accreditation Process

1. I have been involved with the Aaksh Team to initiate the process of registering with NABL and getting the application ready for the online submission through the NABL portal
2. Getting documents ready through the Lab consultant and the Lab head to upload documentation, including QMS manual, SOPs, and method validation reports
3. Preparation of setup to undergo a pre-assessment by NABL-appointed assessors
4. The team have planned internal assessments to address any non-conformities identified during pre-assessment
5. Will be hosting the final assessment, where technical and management systems are thoroughly evaluated
6. The expected month of getting approval from NABL is January 2026

9. Additional Tips for Instant Coffee Packing

- Integrate laboratory findings with production and quality assurance processes for continuous improvement
- Stay updated with FSSAI and international food safety regulations
- Promote the NABL accreditation status as a mark of quality to customers and stakeholders

Closing Statement

Setting up a NABL-accredited laboratory is a strategic investment for Aaksh Beverages Pvt. Ltd. for its core work of instant coffee packing aiming for excellence in product quality, regulatory compliance, and market competitiveness. By following the outlined SOP, steps and adhering to best practices, companies can achieve and maintain accreditation, ensuring customer satisfaction and business growth.