



Why become an accredited laboratory?



The benefits of NiNAS accreditation for testing and calibration laboratories



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Accreditation

Laboratory accreditation attests to the technical competence of laboratories to perform specific types of testing, measurement and calibration.

NiNAS accreditation means that NiNAS has assessed the lab against recognized standards and the lab has demonstrated that it is technically competent, impartial and able to produce consistently reliable results.

The choice between laboratory accreditation and ISO 9001 certification

Laboratory accreditation uses criteria and procedures specifically developed to determine technical competence. Specialist technical assessors conduct a thorough evaluation of all factors in a laboratory that affect the production of test or calibration data. By this process, laboratory accreditation aims at assuring that the laboratory's test or calibration data are accurate and reliable.

The ISO 9001 standard is widely used in manufacturing and service organizations to evaluate their systems for managing the quality of their product or service. Certification of an organization's quality management system against ISO 9001 aims at confirming the compliance of the management system to this standard.

Whilst laboratories may be certified to ISO 9001, such certification does not make any statement about the technical competence of a laboratory.

A laboratory that is accredited to ISO/IEC 17025, is also deemed to meet the requirements of ISO 9001, but the reverse is not true.

Benefits of NiNAS accreditation for laboratories

1. Earn reputation and credibility

NiNAS accreditation is a means of demonstrating your competency to your clients: you have been successful at meeting the requirements of international standards and you have demonstrated technical competence to provide reliable and accurate results.

In fact, NiNAS accreditation is highly regarded both nationally and internationally as a reliable indicator of technical competence. Many industries around the world, such as the construction materials industry, routinely specify laboratory accreditation for suppliers of testing services.

NiNAS accreditation is a guarantee of integrity and competence that can act like a passport to submit tenders to contractors that require independently verified laboratories.

In sum, NiNAS accreditation will increase your customers' trust and will earn you credibility with government and private customers.

2. Earn international recognition

NiNAS will be gaining an international recognition. Once that happens, through a system of international agreements, as a NiNAS-accredited laboratory, you will also receive a form of international recognition, which allows your data to be more readily accepted on overseas markets.

Thanks to this recognition, manufacturers and exporters that have their products or materials tested by a NiNAS-accredited laboratory, will reduce costs because they reduce or eliminate the need for retesting in another country.

3. Earn visibility

NiNAS publishes a directory of accredited laboratories, which includes contact details for the laboratories plus information on their capabilities. This directory provides a means for customers to identify and select reliable testing, measurement and calibration laboratories that meet their needs.

In addition, as a NiNAS-accredited laboratory, you can use your certificate of accreditation in advertising, promotional material and stationery to show current and potential customers that your laboratory is committed to quality and has demonstrated technical competency to perform services.

4. Earn competitive advantage

NiNAS accreditation is a sign of integrity and competence that will set your laboratory apart from the competition. It will provide you with a competitive edge and a marketing advantage vis-à-vis other laboratories.

Through NiNAS accreditation you will differentiate yourself and increase your commercial opportunities.

NiNAS accreditation is an effective marketing tool for testing, calibration and measurement laboratories.



Additional benefits that your laboratory will gain by preparing for NiNAS accreditation:

- » Improved documentation systems
- » Efficiency of management systems
- » Consistency of results
- » Raised productivity
- » Improved customer focus
- » Fewer customer complaints
- » Reduction in incidents
- » Improved safety at work
- » Professional self-respect
- » Enhanced team awareness
- » Increased employee morale
- » Increased employee retention



International recognition for your laboratory

Many countries around the world have organizations responsible for the accreditation of their nation's laboratories (e.g. NiNAS in Nigeria). These accreditation bodies have adopted ISO/IEC 17025 as the basis for accrediting their country's testing and calibration laboratories. This has helped countries employ a uniform approach to assessing laboratory competence. It has also encouraged laboratories to adopt internationally accepted testing and measurement practices, where possible.

This uniform approach allows countries to establish agreements among themselves, based on mutual evaluation and acceptance of each other's laboratory accreditation systems. Such international agreements, called mutual recognition arrangements (MRAs), are

crucial in enabling test data to be accepted between these countries. In effect, each partner in such an MRA recognizes the other partner's accredited laboratories as if they themselves had undertaken the accreditation of the other partner's laboratories.

Over 90 laboratory accreditation bodies have signed a multilateral recognition agreement called the ILAC (International Laboratory Accreditation Cooperation) arrangement which greatly enhances the acceptance of data across the national borders of the signatory countries. Full details for the ILAC arrangement and the list of signatories can be found on the ILAC website at www.ilac.org.

This system of international MRAs between accreditation bodies has enabled accredited laboratories to achieve a form of international recognition, and allowed data accompanying exported goods to be more readily accepted on overseas markets. This effectively reduces costs for both the manufacturer and the importers, as it reduces or eliminates the need for products to be retested in another country.



What type of laboratories can seek accreditation?

NiNAS can provide accreditation for:

- » Facilities undertaking any sort of testing, calibration or measurement;
- » Private or government laboratories;
- » Small operations or large multidisciplinary organizations.

Testing laboratories

Scope of accreditation

- » Tests performed on specific materials or products to specific test methods
- » Techniques for specified instrument(s) using specific chemical and/or physical methods, to identify and/or determine a physical property of a material or species

Fields of accreditation

- » Food & beverages
- » Chemical
- » Microbiological
- » Civil engineering
- » Electrical

Requirements for accreditation

- » Compliance with the quality management, scientific and technical aspects of testing laboratories as described in ISO/IEC 17025
- » Additional technical requirements specific to the technical field
- » Additional ILAC requirements such as participation in proficiency testing or inter-laboratory comparisons

Calibration laboratories

Scope of accreditation

- » Parameters
- » Ranges

Fields of accreditation

- » Mass & volume
- » Dimensional
- » Time & frequency
- » Temperature & humidity
- » Gas & air pollution metrology

Requirements for accreditation

- » Compliance with the standards described in ISO/IEC 17025
- » NiNAS technical requirements documents
- » The lab's own Quality Management System

If you are considering seeking accreditation for your laboratory, please contact NiNAS to check whether we can accredit your range of services.





How do laboratories become accredited?

Laboratories can have either all or part of their testing and calibration activities accredited.

The accreditation process involves a thorough evaluation of all the elements of a laboratory that contribute to the production of accurate and reliable test data.

The evaluation process involves the use of specialist technical assessors who evaluate the specific types of testing or measurement being performed. The assessment criteria are based on the international standard ISO/IEC 17025, which is used for evaluating laboratories throughout the world. NiNAS uses this standard specifically to assess factors relevant to the laboratory's technical competence, including:

- » technical competence of staff
- » validity and appropriateness of test methods
- » traceability of measurements and calibrations to national standards
- » suitability, calibration and maintenance of test equipment

- » testing environment
- » sampling, handling and transportation of test items
- » quality assurance of test and calibration data

At the end of the assessment a detailed report on the evaluation is presented to the laboratory, highlighting any areas that require attention and corrective action prior to the laboratory being recommended for accreditation.

Once accredited, the laboratory is re-evaluated periodically to ensure its continued compliance with requirements, and to check that its standard of operation is being maintained. The laboratory may also be required to participate in relevant proficiency testing programs between reassessments, as a further demonstration of technical competence.



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