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# MAURITAS G10

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Frequency of Participation in Proficiency Testing / Measurement Audits / Inter-Laboratory Comparison - A guide for Laboratories and Inspection Bodies

**CONTENTS**

<b>Foreword .....</b>	<b>2</b>
<b>About MAURITAS publications .....</b>	<b>2</b>
<b>1. Purpose .....</b>	<b>3</b>
<b>2. Scope and Responsibilities .....</b>	<b>3</b>
<b>3. References.....</b>	<b>3</b>
<b>4. Definitions.....</b>	<b>3</b>
<b>5. Proficiency Testing / Measurement Audits / Inter-Laboratory Comparisons.....</b>	<b>4</b>
<b>6. Frequency of participation in Proficiency Testing, Measurement Audit, Inter-Laboratory Comparison .....</b>	<b>5</b>
<b>7. Proficiency Testing / Measurement Audit providers .....</b>	<b>5</b>

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## Foreword

The MAURITIUS ACCREDITATION SERVICE (MAURITAS) is a governmental body established in 1998 to provide a national, unified service for the accreditation of conformity assessment bodies (CABs) such as calibration/testing laboratories, certification bodies and inspection bodies. Organizations that comply with the MAURITAS requirements are granted accreditation by MAURITAS and are entitled to use the MAURITAS Accreditation symbol.

## About MAURITAS publications

MAURITAS publications are categorized as follows:

- R series            Publications containing general policy and requirements related to MAURITAS accreditation.
- G series            Publications providing guidance on MAURITAS requirements.
- Directories        Classified listing of accredited organizations.

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# Frequency of Participation in Proficiency Testing / Measurement Audits / Inter-laboratory Comparison - A guide for laboratories and Inspection Bodies

## 1. Purpose

1.1 This document provides a guidance on the frequency of participation in proficiency testing/measurement audits/inter-laboratory comparison by accredited laboratories or inspection bodies for the various conformity assessment services provided.

## 2. Scope and Responsibilities

2.1 This document serves as a guidance for accredited laboratories and inspection bodies for determining the frequency of participation in Proficiency Testing / Measurement Audits / Inter-Laboratory comparison for the coming accreditation cycle.

## 3. References

The following documents contain provisions which, through reference to this text, constitute provisions of the MAURITAS accreditation system. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. For undated MAURITAS references, the latest edition of the document referred to, applies. MAURITAS maintains a register of the current valid MAURITAS accreditation documents.

- 3.1 MAURITAS R series
- 3.2 ISO/IEC 17000: Conformity Assessment – Vocabulary and General Principles
- 3.3 ILAC P9, ILAC Policy for Participation in Proficiency Testing Activities
- 3.4 APLAC PT 006: Proficiency Testing Frequency Benchmarks

## 4. Definitions

### 4.1 Laboratory

A body that calibrates and/or tests.

### 4.2 Inspection body

A body that performs the examination of a product design, product, process or installation and the determination of its conformity with specific requirements or, on the basis of professional judgement, with general requirements.

#### **4.3 Proficiency Testing**

Proficiency Testing is the evaluation of participant laboratory performance against pre-established criteria by means of inter-laboratory comparison. Additionally, a proficiency testing is a formal exercise which is managed by a coordinating body and includes a standard or reference laboratory. Each participant laboratory analyse the material under typical conditions and report the result to the coordinating body. The latter then compile the results and inform the participants of the outcome, usually in the form of a score relating to the accuracy of the result. Some providers of proficiency testing in the medical area use the term “External Quality Assessment (EQA)” for their proficiency testing schemes, or for their broader programmes, or both

#### **4.4 Measurement Audit**

A Measurement Audit is the calibration of a measurement standard or measurement instrument, whose calibration parameters are known, by a laboratory exclusively and entirely in the presence of the technical assessor during the on-site assessment. The test item is given either by the assessor or provided by a third party.

#### **4.5 Inter-laboratory Comparison**

Inter-Laboratory comparison is the organization, performance, and evaluation of measurements or tests on the same or similar items by agreement between two or more laboratories or inspection bodies in accordance with predetermined conditions. It does not include the participation of a reference laboratory or coordinating body.

### **5. Proficiency Testing / Measurement Audits / Inter-Laboratory Comparisons**

**5.1** All applicant/accredited laboratories and inspection bodies, where relevant, seeking extension of scope, should participate with satisfactory results in Proficiency Testing programs or Measurement Audits for all parameters for which accreditation is sought. The outcome of the Proficiency Testing / Measurement Audits / Inter-Laboratory Comparison participation should be available at latest at the time of the initial assessment/extension of scope exercise. Proficiency Testing / Measurement Audits / Inter-Laboratory Comparison participation which is more than two years prior to the initial assessment/extension of scope would not be considered.

**5.2** All accredited laboratories and inspection bodies, where relevant, should submit, to MAURITAS, a Proficiency Testing Participation Plan for each accreditation cycle at the beginning of each cycle. The plan should be suitable to the scope of accreditation of the laboratory/inspection body and should show the frequency of participation in Proficiency Testing / Measurement Audits / Inter-Laboratory Comparison. All accredited laboratories/inspection bodies, where relevant, should submit to MAURITAS an updated Proficiency Testing Participation Plan in case they are granted an extension for new parameters.

**5.3** Laboratories / Inspection bodies should analyse Proficiency Testing participation data in such a way to identify trends. Laboratories/inspection bodies that do not have sufficient results for Proficiency Testing / Measurement Audits / Inter-Laboratory Comparison for performing the trend analysis should combine the Proficiency Testing / Measurement Audits / Inter-Laboratory Comparison results from the previous and current accreditation cycle and provide same to the assessment team at each visit.

**5.4** Where performance in the Proficiency Testing / Measurement Audits / Inter-Laboratory Comparison is deemed to be questionable or unsatisfactory, the laboratory/inspection body should investigate, take corrective actions and report back to MAURITAS.

**5.5** In turn, MAURITAS may accept the explanation provided, accept the corrective actions undertaken, require a further assessment or reduce the accreditation scope.

**5.6** In the event that there are areas for which Proficiency Testing / Measurement Audits / Inter-Laboratory Comparison are not available, the laboratory/inspection body should discuss with MAURITAS and agree on suitable options by which competence of the laboratory/inspection body can be recognised and monitored. This information should be documented in the Proficiency Testing Plan of the laboratory/inspection body

## 6. Frequency of participation in Proficiency Testing, Measurement Audit, Inter-Laboratory Comparison

6.1 It is recommended that laboratories and inspection bodies make use of the following table in determining the frequency of participation in Proficiency Testing / Measurement Audit / Inter-Laboratory Comparison in an accreditation cycle.

### For Testing Laboratories/Inspection Bodies:

Field	Frequency
Acoustical	Once every two years
Biological	Once every year
Chemical	Once every year
Construction Materials Testing	Once every two years
Electrical	Once every two years
Environmental	Once every year
Food Testing	Once every year
Forensic	Once every year
Health and Hygiene Testing	Once every year
Mechanical	Once every two years
Medical	At least twice per year
Non-Destructive Testing (NDT)	Once every two years
Occupational	Once every two years
Textiles and Garments Testing	Once every two years
Veterinary	Once every year

### For Calibration Laboratories/Inspection Bodies:

Field	Frequency
Acoustics	Once every two years
Dimensional calibration	Once every two years
Electrical calibration	Once every two years
Flow	Once every two years
Force/hardness	Once every two years
Humidity	Once every two years
Mass	Once every two years
Pressure	Once every two years
Thermal calibration	Once every two years
Time and frequency	Once every two years
Temperature	Once every two years
Viscosity	Once every two years
Volume	Once every two years

## 7. Proficiency Testing / Measurement Audit providers

**7.1** Applicant and accredited laboratories and inspection bodies may have access on a list of Proficiency Testing/Measurement Audit providers by consulting the MAURITAS website on the following link:

<http://mauritas.org/links.php>

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