**Introduction**

This form is intended for Proficiency Testing Providers (PTPs) to use in the creation of PTP Scopes of Accreditation. The Scope of Accreditation is a significant document in the accreditation process, as it is the Accreditation Body’s official publication attesting to an organization’s technical competence in providing specific types of proficiency testing.

As a part of A2LA’s international recognition arrangement obligations, we are required to comply with ISO/IEC 17011. Therefore, to apply for A2LA accreditation as a Proficiency Testing Provider, each applicant is required to identify (at a minimum) the following:

1. **Proficiency testing scheme(s)**
2. **Type of proficiency testing item(s)**
3. **The type of measurand(s) or characteristic(s) that are to be identified, measured, or tested on the PT item**.

The techniques used for the determination of the assigned value and uncertainty may be documented on your scope, if applicable and relevant (but not required).

ISO/IEC 17043, Annex B, clause B.2.1. includes the following common techniques used:

1. Known values – with results determined by specific proficiency test item formulation (e.g.

manufacture or dilution)

1. Reference values – as determined by analysis, measurement or comparison of the proficiency

test item alongside a reference material or standard, traceable to a national or international

standard

1. Consensus values from expert participants – experts (which may, in some situations, be reference laboratories) should have demonstrable competence in the determination of the measurand(s) under test, using validated methods known to be highly accurate and comparable to methods in general use
2. Consensus values from participants – using statistical methods described in ISO 13528 and the IUPAC International Harmonized Protocol, and with consideration of the effects of outliers.

**Instructions**

Because of the wide breadth of proficiency tests (PTs) available, the range in the types of proficiency testing schemes does not always lend itself to have a consistent scope formatting. The table below should be filled out with all of the relevant information needed in order for A2LA to draft the Scope of Accreditation. Each PT testing scheme on the scope of accreditation will need to have an individual table completed to collect the required information.

Please note that you may also visit <https://portal.a2la.org/search/> to review currently accredited PTPs and see how information is presented on published Scopes of Accreditation.

**Please complete the relevant table(s) for which accreditation is being sought. The last field on the table may not be applicable so only fill in what is relevant to the specific PT being provided. For additional PTs, please feel free to copy/paste additional tables as needed. If you wish to include specifics for the PT scheme (i.e. analytes or type of equipment), please list that information within the “Measurand(s) or Characteristic(s) being Tested, Identified, or Measured” area.**

|  |  |
| --- | --- |
| **Proficiency Testing Scheme (PT program that will be offered):** |  |
| **Proficiency Testing Item/Artifact/Matrix/Subdiscipline that will be Tested or Measured:** |  |
| **Measurand(s) or Characteristic(s) being Tested, Identified, or Measured:** |  |
| **Technique(s) Used to Determine Assigned Value(s) and its Uncertainty (if applicable):** |  |

**\*\*\*Please also note at the end of this document is an optional draft scope template if your organization wishes to submit a draft scope of accreditation in addition to the table above.**

**Note: The following tables represent example formats for various types of testing, measurement and calibration proficiency testing schemes and may be used as a reference for drafting the desired scope of accreditation. The listings in the examples are not by any means exhaustive but rather are provided for demonstration of information presentation.**

SCOPE OF ACCREDITATION TO ISO/IEC 17043:2010

PROFICIENCY TESTING PROVIDER

Valid To: Month 31, 202- Certificate Number: ####.##

In recognition of the successful completion of the A2LA evaluation process, this Proficiency Testing Provider has been found to meet the ISO/IEC 17043:2010, “Conformity assessment - General Requirements for Proficiency Testing”. Accreditation is granted to this organization to provide the following:

**Table A - CALIBRATION TEMPLATE (Example)**

|  |  |  |
| --- | --- | --- |
| **PT SCHEME2** | **PT ITEM/SUB-DISCIPLINE** | **Measurand(s) or Characteristic(s) being Tested, Identified, or Measured** |
| **DIMENSIONAL** | 1D – portable gauging and hand tools | Micrometers  (0 – 50) mm  (0 – 2) in  Calipers  (0 – 150) mm  (0 – 6) in  Indicators  (0 – 12.5) mm  (0 – 0.5) in |
| 1D – artifacts, standards, and parts | Gage Blocks  Up to 500 mm  Up to 20 in  Plug Gages  Up to 50 mm  Up to 2 in  Ring Gages  Up to 100 mm  Up to 4 in  Micrometer Standards  (25 – 300) mm  (1 – 12) in  Artifacts  Up to 500 mm  Up to 20 in |
| 2D – artifacts, standards, and parts | Artifacts  Up to (500 x 500) mm  Up to (20 x 20) in |
| 3D – artifacts, standards, and parts | Artifacts  Up to (500 x 500 x 500) mm  Up to (20 x 20 x 20) in |
| Other | Thread Plug Gages  Up to 50 mm  Up to 2 in  Thread Wires  Up to 5 mm  Up to 0.2 in |
| **ELECTRICAL – DC/LOW FREQUENCY** | Current | DC Current[[1]](#endnote-2)  1 mA – 3 A  AC Current1  100 mA – 3 A  @ 3 Hz – 5 KHz |
| Voltage | DC Voltage1  10 mV – 1000 V  AC Voltage1  10 mV – 750 V  @ 3 Hz – 300 KHz |
| Resistance | 10 Ohm – 100 MOhm1 |
| Process Calibrators | DC Current1  1 mA – 24 mA  DC Voltage1  10 mV – 30 V  Resistance1  40 Ohm – 3.2 Kohm  Thermocouple Simulation1  Type J (-200 – 1200) °C  Type K (-200 – 1370) °C  Type T (-200 – 400) °C  Type E (-200 – 950) °C  Type R (-20 – 1750) °C  Type S (-20 – 1750) °C  Type B (600 – 1800) °C  Type L (-200 – 900) °C  Type U (-200 – 400) °C  Type N (-200 – 1300) °C  RTD Simulation1  Ni120 (-80 – 260) °C  Pt100 (-200 – 800) °C  Pt200 (-200 – 630) °C  Pt500 (-200 – 630) °C  Pt1000 (-200 – 630) °C |
| **ELECTRICAL – RF/MICROWAVE** | Attenuation, AM/FM/PM modulation, power | RF Power Sensor Calibration Factor  10 MHz – 18 GHz1  Microwave Attenuators  3, 6, 10, 20 dB  @ 300 MHz – 18 GHz1 |
| **MECHANICAL** | Pressure, vacuum | -14 – 750 psi1 |
| Torque, force, durometers, extensometers, strain gauges | Torque Wrenches1  6 in-lb – 100 ft-lb |
| Scales & balances, mass | Weights  1 g – 500 g |
| **TIME & FREQUENCY** | Period, time, frequency | Tachometer1  Optical (30 – 95 000) rpm  Mechanical (100 – 19 900) rpm |

Participants source the listed parameter.

2 Reference Values were determined in accordance with ISO/IEC 17043 Annex B Clause B.2.1

SCOPE OF ACCREDITATION TO ISO/IEC 17043:2010

PROFICIENCY TESTING PROVIDER

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**Table B - BIOLOGICAL TEMPLATE (Example)**

|  |  |  |
| --- | --- | --- |
| **PT SCHEME** | **Measurand(s) or Characteristic(s) being Tested, Identified, or Measured** | **PT ITEM: MATERIAL/MATRIX/TYPE** |
| Quantitative Bacteriology | Determination of E. coli | Food, Milk |
| Quantitative Mycology | Determination of Penicillium | Food, Milk |
| Quantitative Virology | Determination of HIV | Animal blood |

SCOPE OF ACCREDITATION TO ISO/IEC 17043:2010

PROFICIENCY TESTING PROVIDER

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**Table C - CHEMICAL TEMPLATE (Example)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **PT SCHEME** | **Measurand(s) or Characteristic(s) being Tested, Identified, or Measured** | | **PT ITEM: MATERIAL/**  **MATRIX/TYPE** | | **TECHNIQUES FOR DETERMINATION OF THE ASSIGNED VALUE AND ITS UNCERTAINTY** |
| Chromatography | | Elemental composition of steel | | Ferrous Metals | Consensus values from expert participants |
| Combustion | |  | |  | Consensus values from expert participants |
| Spectroscopy | |  | |  | Consensus values from participants |
| Wet Chemistry | |  | |  | Consensus values from participants |

SCOPE OF ACCREDITATION TO ISO/IEC 17043:2010

PROFICIENCY TESTING PROVIDER

Valid To: Month 31, 202- Certificate Number: ####.##

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**Table D – MECHANICAL TEMPLATE (Example)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **PT SCHEME** | **Measurand(s) or Characteristic(s) being Tested, Identified, or Measured** | | **PT ITEM: MATERIALS /MATRIX/TYPE** | | **TECHNIQUES FOR DETERMINATION OF THE ASSIGNED VALUE AND ITS UNCERTAINTY** | |
| Tensile Strength | | Tensile Strength | | Metals | | Reference values as determined by analysis |
| Compression Strength | | Compression Strength | | Metals | | Reference values as determined by analysis and measurement of the proficiency test item alongside a reference material |
| Impact Resistance  (Izod, Charpy) | | Impact Resistance  (Izod, Charpy) | | Metals | | Reference values as determined by analysis and measurement of the proficiency test item alongside a reference material |
| Hardness  (Rockwell, Brinell) | | Hardness  (Rockwell, Brinell) | | Metals | | Reference values as determined by analysis and measurement of the proficiency test item alongside a reference material |
| Microhardness | | Microhardness | | Metals | | Reference values as determined by analysis |
| Color | | Color | | Metals | | Reference values as determined by analysis |

**DRAFT SCOPE TEMPLATE**

SCOPE OF ACCREDITATION TO ISO/IEC 17043:2010

PROFICIENCY TESTING PROVIDER

Valid To: Month 31, 202- Certificate Number: ####.##

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|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **PT SCHEME** | **Measurand(s) or Characteristic(s) being Tested, Identified, or Measured** | | **PT ITEM: MATERIALS /MATRIX/TYPE** | |
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**Note: The template above is NOT required to be used. There is some flexibility on the formatting of scopes as long as the minimum required information is documented.**

**DOCUMENT REVISION HISTORY**

|  |  |
| --- | --- |
| **Date** | **Description** |
| 01/05/19 | * Integrated into Qualtrax |
| 10/02/19 | * Modified introductory language to identify specific scope requirements for consistency with other A2LA ISO scope selection lists * Updated Header/Footer to current version * Updated format and font for consistency |
| 05/07/21 | * Modified first paragraph to go in line with requirements outlined in ISO/IEC 17011 and RMP selection list * Modifications to examples to ensure minimum scope requirements are identified |

1. [↑](#endnote-ref-2)