To apply for A2LA accreditation under the mechanical field of testing, each applicant is required to identify the test type/test technology and associated test method(s) for which accreditation is sought on table-A below. In addition, please identify the types of products, materials, and/or structures that your laboratory tests on table-B below. This will ensure that an assessor’s technical expertise is correctly matched to the testing that your laboratory performs and enables A2LA staff to generate the desired draft Scope of Accreditation.

Refer to the example proposed scope of accreditation (0000.01) on the next page for reference when entering the required information in tables A and B. Submission via electronic means is preferred.

**Table A**

Test Type/Technology: Test Method:

|  |  |
| --- | --- |
| e.g. Microhardness (Knoop, Vickers) | ASTM E384 |
| e.g. Tensile Properties of Rubber  | ASTM D412; ISO 37 |
| e.g. Tensile Properties of Plastics | ASTM D638; ISO 527 |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| Please attach sheet(s) for additional tests |

## Table B

Types of products, materials, and/or structures that the laboratory tests:

|  |
| --- |
| e.g. Aerospace Components, Metals, Metal Fasteners, Paper, Plastics, Office Furniture, Rubber, Windows/Doors, Wood |
|  |
|  |
|  |

# *PROPOSED SCOPE OF ACCREDITATION*

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

EXAMPLE DRAFT SCOPE LABORATORY

12345 Main Street

*Identify the product(s) and/or materials on which you perform testing.*

Frederick, MD 21704

John Doe Phone: 555 555 5555

MECHANICAL

Valid To: May 31, 2007 Certificate Number: 0000.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following test on metals, metal fasteners, plastics, polymers and rubber:

|  |  |
| --- | --- |
| Test:  | Test Methods: |
| Metal: | List the test type/technology and associated standard test method(s) that the CAB is seeking accreditation for. |
| Charpy Impact | ASTM E23 |
|  |  |
| Fracture Toughness | ASTM B645 |
|  |  |
| Hardness |  |
|  Brinell (500kg, 3000kg) | ASTM E10 |
|  Rockwell (15N, 30N, 15T, 30T)  | ASTM E18, F606, F606M  |
|  |  |
| Microhardness  | ASTM E384 |
| Knoop (HK 0.5) |  |
| Vickers (HV 0.5) |  |
|  |  |
| Metallographic Evaluation: |  |
| Case Depth | SAE J423 |
|  |  |
| Plastic: |  |
| Ash Content | ASTM D5630 (Method B); ISO 3451 (Method A) |
|  |  |
| Tensile Properties of Plastics | ASTM D638; ISO 527 |
|  |  |
| Rubber: |  |
| Durometer Hardness (Shore A) |  |
|  |  |
| Tensile Properties of Rubber  | ASTM D412 (Method A); ISO 37 |
|  |  |

\*Please note that a laboratory can be accredited to in-house procedures/test methods in combination with or in lieu of internationally recognized test methods.

\*\* Please note that to be considered for accreditation, a copy of each selected test method and the requisite equipment must be available at the laboratory.

In accordance with *[R205 - Specific Requirements - Calibration Laboratory Accreditation Program](https://a2la.qualtraxcloud.com/ShowDocument.aspx?ID=5639) (Appendix D) and [G118 - Guidance for Defining the Scope of Accreditation for Calibration Laboratories](https://a2la.qualtraxcloud.com/ShowDocument.aspx?ID=5656) (Appendix B)*, each applicant applying for accreditation in the mechanical testing field and performing dimensional testing must present their scopes in the following way:

**Example 1: Mechanical Testing Scope presentation when the dimensional test *does* serve as a link in the traceability chain:**

I. Dimensional Testing/Calibration1

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter/Equipment | Range | CMC2, 4 () | Comments |
| One Dimensional3 –LengthRadius | Up to 6 inUp to 6 in | 320 μin280 μin | Optical comparator |
| Length Standards (1D)3 | (0 to 25) in | (75 + 2L) μin | CMM |

1 This laboratory offers commercial dimensional testing/calibration service.

2 Calibration and Measurement Capability (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. Calibration and Measurement Capabilities represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of *k* = 2. The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer’s device and to influences from the circumstances of the specific calibration.

3 This laboratory meets [R205](https://a2la.qualtraxcloud.com/ShowDocument.aspx?ID=5639) *[– Specific Requirements: Calibration Laboratory Accreditation Program](https://a2la.qualtraxcloud.com/ShowDocument.aspx?ID=5639)* for the types of dimensional tests listed above and is considered equivalent to that of a calibration certificate.

4 Inthe statement of CMC, *L* is the numerical value of the nominal length of the device measured in inches.

**Example 2: Mechanical Testing Scope presentation when dimensional testing *does* *not* serve as a link in the traceability chain:**

I. Dimensional Testing1

|  |  |  |
| --- | --- | --- |
| Parameter | Range | Technique / Method |
| Angle2 | 0 to 360 | Optical comparator; MIL-STD-120 |
| Radius2 | (0.005 to 3) in | Optical comparator; MIL-STD-120 |
| Length (1D)2 | (0 to 1) in | Micrometers; MIL-STD-120 |

1 This laboratory offers commercial dimensional testing service only.

2 This test is not equivalent to that of a calibration.

###  **Document Revision History**

|  |  |
| --- | --- |
| **Date** | **Description** |
| 03/05/18 | * Updated obsolete reference to dimensional requirements in A2LA documentation
* CMC column removed from Dimensional table which does not serve as a link in the traceability chain per G118
* Updated scope to remove reference to ISO/IEC 17025:2005
 |
| 01/05/19 | * Integrated into Qualtrax
 |
| 09/12/19 | * Updated Header/Footer to current version
* Added Qualtrax hyperlinks
* Updated format and font for consistency
 |