


<b>Preparing Authority:</b>  Brittney Rollison	  <b>P103e - Annex-Policy on Estimating Measurement Uncertainty for Forensic Conformity Assessment Bodies</b>	<b>Publication Date:</b>  11/12/20
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A2LA has compiled information regarding the classification of common test methods to meet the A2LA Policy on Measurement Uncertainty for Conformity Assessment Bodies (CABs). Following is a list of example classifications, which has been reviewed by the A2LA Forensic Examination Advisory Committee.

The list below is intended to provide examples of how the listed methods are typically categorized. **These classifications are dependent on the particular circumstances at the time of performance, and may not apply in all cases.** The fact that a method is listed below in Category I or II does not absolve a forensic unit from compliance with 7.6.3 of ISO/IEC 17025:2017 the need to address measurement uncertainty.

The list is organized by test area. Within each area, the methods are ordered first by Category (as defined in the, Policy on Estimating Measurement Uncertainty for Testing Laboratories, P103, and the applicable cross-referenced annexes, P103a-e, then by method designation. In some disciplines, specific method numbers are not listed. This list will be updated periodically as more information is made available. Such updates may include changes in categories. Following is a list of the test areas currently covered:

- General
- Forensic Biology
- Controlled Substances
- Forensic Engineering and Environmental Analysis
- Failure Analysis
- Fire Evidence Examination
- Forensic Toxicology
- Questioned Documents
- Trace Analysis

**For tests and test methods not found on this list, please refer to:**

[P103a - Annex-Policy on Estimating Measurement Uncertainty for Automotive & Materials Testing Labs](#)

[P103b - Annex-Policy on Estimating Measurement Uncertainty for Life Sciences Testing Labs](#)

[P103c - Annex-Policy on Estimating Measurement Uncertainty for Electro-Mechanical Testing Labs](#)

[P103d - Annex-Policy on Estimating Measurement Uncertainty for Construction Materials & Geotechnical Testing Labs](#)

Test Method	Standard(s)	Category (I through V)	Cross- Reference
<b><u>General</u></b>			
Thin Layer Chromatography (TLC)		I / II	P103b
Polymerase Chain Reaction Technique (PCR)		II / III	P103b
High-performance Liquid Chromatography (HPLC)		II / III	P103b
Gas Chromatography – Mass Spectrometry (GC/MS)		II / III	P103b
Inductively Coupled Plasma (ICP)		II / III	P103b
<b><u>Forensic Biology</u></b>			
Polymerase Chain Reaction Technique (PCR)	ASTM E1873	II / III	P103b

<b><u>Controlled Substances</u></b>			
Standard Practice for Identification of Seized Drugs	ASTM E2329	I	--
Thin-Layer Chromatographic Identification Test	USP 201	I / II	P103b
Spectrophotometric Identification Tests	USP 197	II / III	--
Spectrophotometry and Light-Scattering – Ultraviolet, Visible, Infrared, Atomic Absorption, Fluorescence, Turbidimetry, Nephelometry, and Raman Measurements	USP 851 (U.S. Pharmacopeia)	II / III	P103b
<b><u>Forensic Engineering and Environmental Analysis</u></b>			
Standard Test Method for Comparison of Waterborne Petroleum Oils by Infrared Spectroscopy	ASTM D3414	I	--
Standard Test Method for One-Dimensional Swell or Collapse of Cohesive Soils	ASTM D4546	II	--
<b><u>Failure Analysis</u></b>			
<b>Mechanical</b>			
Standard Practice for Investigation and Analysis of Physical Component Failures	ASTM E2332	I	--
Standard Test Methods for Measuring the Forced Entry Resistance of Sliding Door Assemblies, Excluding Glazing Impact	ASTM F842	II	--
<b><u>Fire Evidence Examination</u></b>			
Standard Practice for Separation of Ignitable Liquid Residues from Fire Debris Samples by Solvent Extraction	ASTM E1386	III	--
Standard Practice for Separation of Ignitable Liquid Residues from Fire Debris Samples by Passive Headspace Concentration with Activated Charcoal	ASTM E1412	III	--
Standard Test Method for Ignitable Liquid Residues in Extracts from Fire Debris Samples by Gas Chromatography Mass Spectrometry	ASTM E1618	III	--
Standard Test Method for Ignitable Liquid Residues in Extracts from Fire Debris Samples by Gas Chromatography (Withdrawn 2010)	ASTM E1387	III	--
<b><u>Forensic Toxicology</u></b>			
Arsenic – Procedure to Determine the Presence of Trace Amounts of Arsenic (As) in a Substance Under Test	USP 211	I	--
<b><u>Questioned Documents</u></b>			
<b>Paper</b>			
Grammage of Paper and Paperboard (Weight Per Unit Area)	TAPPI T 410	IV	--
<b><u>Trace Analysis</u></b>			
<b>Fabric/Fibers:</b>			
Fiber Analysis: Qualitative	AATCC 20	I	P103a
Absorbency of Textiles	AATCC 79	I	--
Textiles – Woven Fabrics – Construction – Methods of Analysis	ISO 7211	I / II	--
Fiber Analysis: Quantitative	AATCC 20A	II	P103a

Determination of Formaldehyde Release from Fabric – Sealed Jar Method	AATCC 112	II	--
<b>Glass</b>			
Standard Test Method for Density of Glass by Buoyancy	ASTM C693	II	--
<b>Paint</b>			
Standard Practice for General Techniques for Obtaining Infrared Spectra for Qualitative Analysis	ASTM E1252	I	--

#### DOCUMENT REVISION HISTORY

Date	Description
01/05/19	➤ Integrated into Qualtrax
10/09/19	➤ Updated Header/Footer to current version ➤ Added Qualtrax hyperlinks ➤ Updated format and font for consistency
11/12/20	➤ Removed reference to ISO/IEC 17025:2005.