



SKIM AKREDITASI MAKMAL MALAYSIA (SAMM)
LABORATORY ACCREDITATION SCHEME OF MALAYSIA

INFORMATION & INSTRUCTIONS FOR APPLICATION OF SAMM ACCREDITATION

1. Application must only be made in the prescribed form LA 201C/T.
2. Please ensure that you are familiar with the instructions for completing this form before proceeding any further.
3. Please complete ALL applicable sections of the form in clear print, type or handwriting.
4. In case space provided is insufficient, please use additional pages clearly indicating to which page or section they relate.
5. Please note that your application will be expired after 2 years starting from the date of acceptance by Department of Standards Malaysia (Standards Malaysia).
6. Applicant laboratories are advised to study the relevant accreditation criteria standards and SAMM documents in detail before applying, as listed in our website, www.jsm.gov.my → Accreditation → SAMM → SAMM Publication.
7. Applicant laboratories are advised to ensure that the latest versions of SAMM documents are made available in the laboratory.
8. Please refer to Assessment Fee Schedule as listed in our website, www.jsm.gov.my → Accreditation → SAMM → Fees.
9. All fees shall be made payable to ***Ketua Pengarah, Jabatan Standard Malaysia.***
10. The applicant laboratory shall submit the Application Form (LA 201C/T) with the following supporting documents:
 - i. Application checklist (LA 101-5)
 - ii. Copy of Register of Company (ROC) Certificate and Memorandum of Association (MoA)/Article of Incorporation/Partnership Agreement (if any)
 - iii. PT Record (LA 1501-3) and PT Participation Plan (LA 1501-5)
 - iv. CV of Key Personnel/Proposed Signatory
 - v. MS ISO/IEC 17025 Checklist (LA 201-7)
 - vi. Laboratory Document that covering company profile and information about the laboratory including legal entity and its activities; structure/organisation chart; policies and objectives; identified management personnel who is responsible for the laboratory's activities (name and responsibility); and risk assessment analysis/report
 - vii. Standard Operating Procedure
 - viii. Calibration/testing Method
 - ix. Internal Audit Report and Management Review Minutes

Note: Laboratory do not need to maintain Standards Malaysia as control holder for laboratory quality documents.

9. The applicant laboratory shall undertake to carry out its testing activities in such way as to meet the requirements of MS ISO/IEC 17025 at all times.
10. The laboratory shall afford Standards Malaysia or its representative cooperation in:
 - a. Undertaking any assessment to verify the calibration/testing capability and competency of the laboratory;
 - b. The laboratory shall unambiguously provide names of all authorised key personnel/proposed signatory who are responsible for authenticity and issue of calibration/test report;
 - c. Offering access to relevant areas of the laboratory for witnessing the calibration/test being performed;
 - d. Examination of all relevant documentation and records;
 - e. Interaction with all relevant personnel.
11. The laboratory shall take all necessary actions and discharge all non-conformities raised during the assessment.
12. Information pertaining to any application or assessment are kept confidential and treated in an impartial and non-discriminatory manner.

Note: All documents and personnel data collected will be used for accreditation purposes only.
13. Example and sample of scope of accreditation sought as in **Appendix A**.
14. List of fields offered by Standards Malaysia are as in **Appendix B**. Please specify your scope of accreditation sought based on those fields.

Appendix A

a) EXAMPLE OF SCOPE OF ACCREDITATION SOUGHT

1. Testing

FIELD OF TESTING: FIELD1 / FIELD2 / FIELD3

SITE TESTING: CATEGORY I / II / III (if applicable)

SCOPE OF ACCREDITATION:

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/Equipment/Techniques	
		_____ Method	Standard Method
		_____ Method/ (Equipment) As documented in _____ (Document ID)	
		In-House Method/ (Equipment) _____(Document ID) traceable to _____(Reference Method)	In-House Method

2. Calibration

* The expanded uncertainties are based on an estimated confidence probability of approximately 95% and have a coverage factor of $k=2$ unless stated otherwise.

FIELD OF CALIBRATION: FIELD1 / FIELD2 / FIELD3

SITE CALIBRATION: CATEGORY I / II / III (if applicable)

Instrument Calibrated/ Measurement Parameter	Range	Calibration and Measurement Capability Expressed as an Uncertainty (\pm)*	Remarks

b) **SAMPLE OF SCOPE**

1. **Testing**

FIELD OF TESTING: FIELD1 / FIELD2 / FIELD3

SITE TESTING: CATEGORY I / II / III (if applicable)

SCOPE OF ACCREDITATION:

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/Equipment/Techniques
<u>Mechanical</u> Ordinary Portland Cement	Fineness Specific surface area (m ² /kg) Blaine method	MS 522: Part 2: 1989 Clause 2
<u>Chemical</u> Air	Formaldehyde	Method 3500 NIOSH Manual of Analytical Methods (NMAM) Fourth Edition, 1994
<u>Biological</u> Water and wastewater	Free, combined and total residual chlorine (DPD)	In-house method 579 based on Palintest comparator
<u>Thermal</u> Steel doorset	Fire resistance test Loadbearing elements of construction	BS 476: Part 21: 1987 Methods for the determination of the fire resistance of loadbearing elements of construction
<u>Electrical</u> Single phase electronic energy meter	Limits of error due to variation of the current Starting test	In-house laboratory test method 004 with reference to IEC 62053-21& IEC 62053-22 In-house laboratory test method 005 with reference to IEC 62053-21

Note:

1. MS: Malaysian Standard
2. BS: British Standard
3. IEC: International Electrotechnical Commission

2. Calibration

*The expanded uncertainties are based on an estimated confidence probability of approximately 95% and have a coverage factor of $k=2$ unless stated otherwise.

FIELD OF CALIBRATION: FIELD1 / FIELD2 / FIELD3

SITE CALIBRATION: CATEGORY I / II / III (if applicable)

Instrument Calibrated/ Measurement Parameter	Range	Calibration and Measurement Capability Expressed as an Uncertainty (\pm)*	Remarks
DC VOLTAGE	220 mV Range (0 mV to \pm 220 mV) 2.2 V Range (0 V to \pm 2.2 V) 11 V Range (0 V to \pm 11 V) 22 V Range (0 V to \pm 22 V) 220V Range (0 V to \pm 220 V) 1100 V Range (\pm 100 V to \pm 1100 V)	9 μ V/V + 0.8 μ V 8 μ V/V + 1.2 μ V 8 μ V/V + 4 μ V 8 μ V/V + 8 μ V 9 μ V/V + 0.1 mV 11 μ V/V + 0.6 mV	Generation using calibrator model Fluke 5700A
AC VOLTAGE	2.2 mV to 220 V (See Matrix A) 1100 V Range 110 V to 1100 V 50 Hz to 1 kHz	(See Matrix A) 90 μ V/V + 4 mV	Generation using calibrator model Fluke 5700A
DC RESISTANCE Specific Values	1 m Ω 10 m Ω 100 m Ω 1 Ω 1.9 Ω 10 Ω 19 Ω 100 Ω 190 Ω 1 k Ω 1.9 k Ω 10 k Ω 19 k Ω 100 k Ω 190 k Ω 1 M Ω 1.9 M Ω 10 M Ω 19 M Ω 100 M Ω 1 G Ω 10 G Ω 100 G Ω 1 T Ω	0.2 m Ω / Ω 0.1 m Ω / Ω 0.02 m Ω / Ω 5 μ Ω / Ω 0.11 m Ω / Ω 5 μ Ω / Ω 31 μ Ω / Ω 5 μ Ω / Ω 0.02 m Ω / Ω 5 μ Ω / Ω 15 μ Ω / Ω 5 μ Ω / Ω 14 μ Ω / Ω 5 μ Ω / Ω 15 μ Ω / Ω 5 μ Ω / Ω 24 μ Ω / Ω 5 μ Ω / Ω 0.05 m Ω / Ω 0.13 m Ω / Ω 5 μ Ω / Ω 0.02 Ω / Ω 0.05 Ω / Ω 0.05 Ω / Ω	Generation using calibrator model Fluke 5700A

Please specify as precisely as possible the scope of accreditation sought.

a) For testing:

1. Please name the field of testing (e.g.: chemical, biological/microbiological, mechanical etc.) in the first column.
2. Please also describe samples or specimens tested (e.g.: Portland cement, masonry cement, fire door, waste water etc.) in the first column.
3. Please describe type of specific tests or properties measured in the second column.
4. Please describe standard test method/specification, technique and equipment used in the third column. Standard test method/specification quoted in the third column should be of national or international standard or those published by reputable technical organisation or in relevant scientific texts or journals. In the absence of such standard test method/specification, documented and validated in house method may be quoted and their copies shall be made available.
5. Please state the identification numbers/index of the laboratory technical procedure for the tests listed in the third column.
6. Please describe in full term any abbreviation used in the schedule (e.g.: ASTM: American Society for Testing Materials)

b) For calibration:

1. Please name the field of calibration (e.g.: mass, dimensional, electrical etc.) in the first column.
2. Please also describe instrument calibrated/measurement parameter (e.g.: gauge block, proving rings, caliper etc.) in the first column.
3. Please describe range of the measurement in the second column.
4. Please describe calibration and measurement capability expressed as an uncertainty of measurement in the third column. The uncertainties are based on an estimated confidence probability of approximately 95% and have a coverage factor of $k=2$ unless stated otherwise.
5. Please state the documented calibration method/procedures/equipment techniques in the fourth column.

Appendix B

TESTING

1. CHEMICAL

- 1.1 Adhesives (Organic Resins) and Glues
- 1.2 Agricultural Products and Materials
- 1.3 Biological Specimens
- 1.4 Cement, Concrete and Related Products
- 1.5 Cosmetics & Essential oils
- 1.6 Drugs and Pharmaceuticals
- 1.7 Dye & Dye Intermediates
- 1.8 Environmental Monitoring
- 1.9 Explosives & Pyrotechnics
- 1.10 Foods
- 1.11 Leather
- 1.12 Medical Devices
- 1.13 Metals and Alloy
- 1.14 Ores & Minerals
- 1.15 Paints, Varnishes, Inks, Coatings and Allied Products
- 1.16 Paper, Paper Board & Wood Pulp
- 1.17 Petroleum & Petroleum Products
- 1.18 Polymers
- 1.19 Rubber
- 1.20 Soap, Detergents and Toiletries
- 1.21 Solvent
- 1.22 Textiles and Textile Products
- 1.23 Water
- 1.24 Workplace Environment and Hazards

2. BIOLOGICAL

- 2.1 Microbiology
 - 2.1.1 Microbial physiology
 - 2.1.2 Microbial genetics
 - 2.1.3 Cellular microbiology
 - 2.1.4 Medical microbiology
 - 2.1.5 Veterinary microbiology
 - 2.1.6 Environmental microbiology
 - 2.1.7 Evolutionary microbiology
 - 2.1.8 Industrial microbiology
 - 2.1.9 Aero microbiology
 - 2.1.10 Food microbiology
 - 2.1.11 Pharmaceutical microbiology
 - 2.1.12 Agricultural microbiology
 - 2.1.13 Soil microbiology
 - 2.1.14 Water microbiology
 - 2.1.15 Generation microbiology
 - 2.1.16 Nano microbiology
 - 2.1.17 Microbiological tests on foods
 - 2.1.18 Microbiological tests on pharmaceutical and cosmetics
 - 2.1.19 Microbiological environmental sample
 - 2.1.20 Medical devices
 - 2.1.21 Miscellaneous materials & product
- 2.2 Genetically Modified Organism (GMO)
- 2.3 Nucleic Acid
- 2.4 Bio efficacy evaluation of household pesticide testing lab
 - 2.4.1 Mosquito Mats & electric liquid vaporizer
 - 2.4.2 Space spray aerosol

- 2.4.3 Residual spray aerosol
- 2.4.4 Direct spray aerosol
- 2.4.5 Mosquito coils
- 2.4.6 Cockroach baits
- 2.4.7 Mosquito skin repellent
- 2.4.8 Household rat baits
- 2.4.9 Smokeless paper mosquito coils
- 2.4.10 Mosquito gels
- 2.4.11 Other similar products

3. FORENSIC SCIENCE

- 3.1 Controlled Substances
- 3.2 Toxicology
- 3.3 Hairs, Blood, Body Fluids and Tissues
- 3.4 Trace Evidence
- 3.5 Firearms and ballistics
- 3.6 Handwriting and Document Examination
- 3.7 Fingerprints
- 3.8 Marks and Impressions
- 3.9 Audio, Video and Computer Analysis
- 3.10 Accident Investigation
- 3.11 Scene Investigation
- 3.12 Forensic pathology, Entomology, Odontology
- 3.13 Others

4. ELECTRICAL

- 4.1 Electromagnetic Compatibility (EMC)
- 4.2 Household product
- 4.3 Meter
- 4.4 Electrostatic –Sensitive Device (ESD)
- 4.5 Printed Circuit Board (PCB)
- 4.6 Power Cable and Transformer

5. MECHANICAL & NON-DESTRUCTIVE TESTING (NDT)

- 5.1 Mechanical Product
 - 5.1.1 Metal & metal products
 - 5.1.2 Metal powders and sintered products
 - 5.1.3 Welds and welded test specimens
 - 5.1.4 Lifting gear and tensioning and staying systems
 - 5.1.5 Fibre rope and cordage
 - 5.1.6 Springs and energy absorbing devices
 - 5.1.7 Threaded fasteners
 - 5.1.8 Building Products
 - 5.1.9 Concrete
 - 5.1.10 Cement based products
 - 5.1.11 Refractories
 - 5.1.12 Rocks
 - 5.1.13 Cements and pozzolanic materials
 - 5.1.14 Bituminous materials
 - 5.1.15 Soils
 - 5.1.16 Timber and timber products
 - 5.1.17 Building boards and plywood
 - 5.1.18 Glass and glass products
 - 5.1.19 Clays and clay products
 - 5.1.20 Aggregates
 - 5.1.21 Pulpwood, pulp, paper, paperboard and products
 - 5.1.22 Rubber and related products
 - 5.1.23 Gypsum and gypsum products

- 5.1.24 Textiles and related products
- 5.1.25 Motor vehicle safety tests
- 5.1.26 Seat belts and similar devices
- 5.1.27 Personal Protective Equipment (PPE)
- 5.1.28 Environmental Tests (Conditioning Tests)
- 5.1.29 Packages and containers
- 5.1.30 Plastics and related products
- 5.1.31 Leather and leather products
- 5.1.32 Gasket, seals and packing
- 5.1.33 Adhesive and sealers
- 5.1.34 Adhesive tapes
- 5.1.35 Barriers
- 5.1.36 Pipelines
- 5.1.37 Pipes, hoses, valves and fittings
- 5.1.38 Mechanical tests on assemblies
- 5.1.39 Plumbing and drainage fittings
- 5.1.40 Furniture
- 5.1.41 Force measurements and weighing
- 5.1.42 Other materials
- 5.2 Metallurgical
 - 5.2.1 Microstructural tests on metallic & non-metallic alloys
 - 5.2.2 Corrosion tests
 - 5.2.3 Coatings
 - 5.2.4 Elemental Analysis (Non-chemical Method)
- 5.3 Mechanical Equipment
 - 5.3.1 Cylinders and other pressure vessels
 - 5.3.2 Air and gas filters
 - 5.3.3 Respiratory protective devices
 - 5.3.4 Controlled environments
 - 5.3.5 Hand tools
 - 5.3.6 Fans and blowers
 - 5.3.7 Compressors
 - 5.3.8 Pumps
 - 5.3.9 Engines & generators
 - 5.3.10 Industrial, earthmoving and agricultural vehicles
 - 5.3.11 Cutting tools
 - 5.3.12 Toys and games
 - 5.3.13 Sporting and recreational equipment
 - 5.3.14 Gas equipment & related products
 - 5.3.15 Other tests
- 5.4 Non-Destructive Testing (NDT)
 - 5.4.1 Radiographic examination of ferrous metals
 - 5.4.2 Radiographic examination of aluminium alloys
 - 5.4.3 Radiographic examination of magnesium alloys
 - 5.4.4 Radiographic examination of copper alloys
 - 5.4.5 Radiographic examination of zinc alloys
 - 5.4.6 Radiographic examination of nickel, chromium, cobalt alloys
 - 5.4.7 Radiographic examination of titanium alloy
 - 5.4.8 Radiographic examination of rubber and plastics
 - 5.4.9 Radiographic examination of timber
 - 5.4.10 Radiographic examination of other specified non-metals
 - 5.4.11 Radiographic determination of thickness
 - 5.4.12 Radiographic examination of bonded metals
 - 5.4.13 Radiographic examination of metals inserts in non-metals
 - 5.4.14 Radiographic examination of assemblies
 - 5.4.15 Radiographic examination of specified dissimilar metals
 - 5.4.16 Radiographic examination of other specified metals
 - 5.4.17 Ultrasonic examination of ferrite steels

- 5.4.18 Ultrasonic examination of austenitic steels
- 5.4.19 Ultrasonic examination of clad steels
- 5.4.20 Ultrasonic examination of other specified metals
- 5.4.21 Ultrasonic examination of ceramics and refractories
- 5.4.22 Ultrasonic examination of rubber and plastics
- 5.4.23 Ultrasonic examination of timber
- 5.4.24 Ultrasonic examination of other specified non-metals
- 5.4.25 Ultrasonic thickness measurement
- 5.4.26 Ultrasonic examination of bonded metals
- 5.4.27 Ultrasonic examination of finished components in-service
- 5.4.28 Ultrasonic examination of specified dissimilar metals
- 5.4.29 Acoustic emission testing
- 5.4.30 Magnetic particle testing
- 5.4.31 Magnetic flux leakage testing by instrumental indication
- 5.4.32 Penetrant testing
- 5.4.33 Ultrasonic examination of aluminium alloys
- 5.4.34 Underwater non-destructive tests
- 5.4.35 In-plant inspection
- 5.4.36 Visual inspection of :Rolled products, Welded joints, Castings, Forgings, Finished components and assemblies, Structure, Other specified tests
- 5.4.37 Automated non-destructive testing systems
- 5.4.38 Other specified non-destructive tests
- 5.4.39 Eddy current testing of ferromagnetic materials
- 5.4.40 Eddy current testing of non-magnetic materials
- 5.4.41 Visual Inspection: Aluminium alloys, Welded joints, Coatings, Other specified surface conditions, Ferrous metals, Welded joints, Coatings, Other specified surface conditions, Other specified metals, Visual inspection of non-metals
- 5.4.42 Surface Methods by penetrant testing (including visible dye and fluorescent dye techniques)
- 5.4.43 Surface Methods by Magnetic flow method
- 5.4.44 Surface Methods by Current flow method (specify amps AC/DC)
- 5.4.45 Surface Methods by Coil method (specify amps AC/DC)
- 5.4.46 Surface Methods by Magnetic rubber method
- 5.4.47 Other specified surface techniques
- 5.4.48 Hand Tools
- 5.4.49 Metallographic Tests on Ferrous Materials
- 5.4.50 Metallographic Tests on Aluminium and Aluminium Alloys
- 5.4.51 Coatings
- 5.4.52 Corrosion Tests
- 5.4.53 Servicing of Mechanical Calibration Equipment
- 5.4.54 Other Specified Mechanical Tests

6. VETERINARY

- 6.1 Bacteriology
- 6.2 Mycology
- 6.3 Serology
- 6.4 Virology
- 6.5 Parasitology
- 6.6 Pathology
- 6.7 Molecular Biology/Acid Nucleic
- 6.8 Clinical Pathology
- 6.9 Immunology
- 6.10 Prions
- 6.11 Chemistry
- 6.12 Feed Analysis
- 6.13 Animal Nutrition
- 6.14 Others

7. INFORMATION TECHNOLOGY SECURITY EVALUATION AND TESTING

- 7.1 Information Technology
- 7.2 Common Criteria
- 7.3 Software Testing
 - 7.3.1 Security Hardware (HD) Appliance Software (SW)
 - 7.3.2 Security
 - 7.3.3 Hardware appliance Software
 - 7.3.4 Business (Groupware) Software
 - 7.3.5 Embedded Software
 - 7.3.6 Other Software

8. RADIOACTIVITY

- 8.1 Food
- 8.2 Geochemical & Environmental
- 8.3 Industrial
- 8.4 Others

CALIBRATION

1. HEAT & TEMPERATURE

- 1.1 Thermometry
- 1.2 Humidity

2. ELECTRICAL

- 2.1 Measuring Instrument
- 2.2 Sourcing/Generating Instrument
- 2.3 Radio Frequency (RF)
- 2.4 Time & Frequency

3. MASS & MASS RELATED QUANTITIES

- 3.1 Mass
- 3.2 Density
- 3.3 Pressure
- 3.4 Force
- 3.5 Torque
- 3.6 Hardness
- 3.7 Viscosity
- 3.8 Fluid Flow
- 3.9 Volume
- 3.10 Gravity

4. OPTICAL & PHOTOMETRIC

5. DIMENSIONAL

6. ACOUSTIC & VIBRATION

- 6.1 Sound in Air
- 6.2 Sound in Water
- 6.3 Vibration

7. RADIOACTIVITY