



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

CAMBRIDGE MATERIALS TESTING LIMITED

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MECHANICAL

Valid To: April 30, 2025

Certificate Number: 3977.09

In recognition of the successful completion of the A2LA evaluation process accreditation is granted to this laboratory to perform the following tests on platings and coatings, plastics, rubber, personal protection, toys, metals, and petroleum:

Test	Test Method ¹
Mechanical Hydrogen Embrittlement Evaluation of Plating / Coating Processes and Services Environments (Only Type 1a.1 and 1a.2 specimens)	ASTM F519
Ignition Loss of Cured Reinforced Resins	ASTM D2584
Transition Temperatures of Polymers by Differential Scanning Calorimetry	ASTM D3418
Water Absorption of Plastics	ASTM D570
Flexural Properties of Un-reinforced and Reinforced Plastics and Electrical Insulating Materials	ASTM D790
Density and Specific Gravity (Relative Density) of Plastics by Displacement	ASTM D792
Tensile Properties of Thin Plastic Sheet	ASTM D882
Compositional Analysis by Thermogravimetry	ASTM E1131
Practice for General Techniques for Obtaining Infrared Spectra for Qualitative Analysis	ASTM E1252
Water Vapor Transmission of Materials	ASTM E96/E96M
Plastics-Determination of Ash	ISO 3451 Part 1
Rubber Property - Durometer Hardness	ASTM D2240 Type A, D
Measurement of Occupational Noise Exposure	CSA Z107.56
Flammability of Clothing Textiles Only for: Step 1 Original State - Plain Surface Textile Fabric	16 CFR 1610
Respiratory Protective Devices Except for: Non-powered Air-purifying Particulate Respirators (series R and P) Powered Air-purifying Particulate Respirators (PAPR classes HE and PAPR100)	42 CFR Part 84 Subpart K
Water Resistance: Impact Penetration Test	AATCC 42
Water Resistance: Hydrostatic Pressure Test	AATCC 127

Test	Test Method¹
Resistance of Materials Used in Protective Clothing to Penetration by Synthetic Blood	ASTM F1670 / F1670M
Resistance of Medical Face Masks to Penetration by Synthetic Blood (Horizontal Projection of Fixed Volume at a Known Velocity)	ASTM F1862 / F1862M
American National Standard Occupational and Educational Personal Eye and Face Protection Devices Only for: Section 9.6 - Drop Ball Test Section 9.7 - Ignition Test Section 9.11 - High Mass Impact Test Section 9.17.2 - Droplet and Splash Test on Faceshields	ANSI / ISEA Z87.1
Performance of Materials Used in Medical Face Masks (excluding bacterial filtration efficiency)	ASTM F2100
Determining the Initial Efficiency of Materials Used in Medical Face Masks to Penetration by Particulates Using Latex Spheres	ASTM F2299
Standard Specification for Barrier Face Coverings Only for: Section 8.1 – Sub-Micron Particulate Filtration Efficiency Section 8.2 – Airflow Resistance	ASTM F3502
Medical Face Masks - Method for determination of breathability (differential pressure) Only for: Annex C	EN 14683
Determination of Exhalation Resistance Test, Air-Purifying Respirators Standard Testing Procedure (STP)	NIOSH TEB-APR-STP-0003
Determination of Exhalation Valve Leakage Test, Air-Purifying Respirators Standard Testing Procedure (STP)	NIOSH TEB-APR-STP-0004
Determination of Inhalation Resistance Test, Air-Purifying Respirators Standard Testing Procedure (STP)	NIOSH TEB-APR-STP-0007
Determination of Particulate Filter Efficiency Level for N100 Series Filters Against Solid Particulates for Non-Powered, Air-Purifying Respirators Standard Testing Procedure (STP)	NIOSH TEB-APR-STP-0057
Determination of Particulate Filter Efficiency Level for N99 Series Filters Against Solid Particulates for Non-Powered, Air-Purifying Respirators Standard Testing Procedure (STP)	NIOSH TEB-APR-STP-0058
Determination of Particulate Filter Efficiency Level for N95 Series Filters Against Solid Particulates for Non-Powered, Air-Purifying Respirators Standard Testing Procedure (STP)	NIOSH TEB-APR-STP-0059
Performance of filtering respirators Only for: Section 6 – Non-powered air-purifying respirators Section 8.3 – Shelf life	CSA Z94.4.1
Detection of Holes in Medical Gloves	ASTM D5151
Safety of Toys - Part 1: Mechanical and Physical Properties Except for: Section 8.15 - Leakage of Liquid Filled Toys Section 8.17 - Durability of Mouth-Actuated Toys Section 8.22 - Dynamic Strength Section 8.26 - Brake Performance	BS EN 71-1

Test	Test Method ¹
Safety of Toys - Part 1: Mechanical and Physical Properties (cont.) Except for: Section 8.27 - Strength of Toy Scooter Steering Tubes Section 8.28 - Determination of Emission Sound Pressure Levels Section 8.31 - Toy Chest Lids Section 8.35 - Magnetic Flux Index	
Small Components	Health Canada Method M00.1
Sharp Edges	Health Canada Method M00.2
Sharp Points	Health Canada Method M00.3
Reasonably Foreseeable Use - Toys	Health Canada Method M01.1
Determining Extremely Flammable and Flammable Solids	16 CFR Part 1500.44
Special Packaging	16 CFR Part 1700.20
Determination of Child Resistance of Portable Fuel Containers for Consumer Use	ASTM F2517
Determination of the Flame Projection and Flashback of Consumer Products Enclosed in Pressurized Containers	Health Canada Method C-23
Child Resistant Packaging - Requirements and Testing Procedures for Reclosable Packages	ISO 8317
Simulating Use and Abuse of Toys and Other Articles Intended for Use by Children	16 CFR Part 1500.50-53
Identifying Toys and Other Articles Intended for Use by Children under 3 Years of Age which Present Choking, Aspiration, or Ingestion Hazards Because of Small Parts	16 CFR Part 1501
Standard Consumer Safety Specification for Toy Safety Only for: Section 4.3.5.1 - Paint and Similar Surface Coating Materials Section 4.3.5.1(2) - Surface Coating Materials - Soluble Test for Metals Section 4.3.5.2 - Toy Substrate Materials Section 4.6 - Small Objects (except labeling and/or instructional literature requirements) Section 4.7 - Accessible Edges (except labeling and/or instructional literature requirements) Section 4.8 - Projections (except bath toy projections) Section 4.9 - Accessible Points (except labeling and/or instructional literature requirements) Section 4.10 - Wires or Rods Section 4.11 - Nails and Fasteners Section 4.12 - Packaging Film Section 4.13 - Folding Mechanisms and Hinges, excluding Toy Chests Section 4.14 - Cords, Straps, and Elastics Section 4.15 - Stability and Overload Requirements Section 4.16 - Confined Space Section 4.17 - Wheels, Tires, and Axles Section 4.18 - Holes, Clearance, and Accessibility of Mechanisms Section 4.19 - Simulated Protective Devices Section 4.20.2 - Toy Pacifiers Section 4.22 - Teethers and Teething Toys	ASTM F963-17

Test	Test Method ¹
Standard Consumer Safety Specification for Toy Safety (cont.) Only for: Section 4.23.1 - Rattles with Nearly Spherical, Hemispherical, or Circular Flare Ends Section 4.24 - Squeeze Toys Section 4.27 - Stuffed and Beanbag-Type Toys Section 4.32 - Certain Toys with Nearly Spherical Ends Section 4.35 - Pompoms Section 4.36 - Hemispheric Shaped Objects Section 4.39 - Jaw Entrapment in Handles and Steering Wheels	
Safety Standard Mandating ASTM F963 for Toys	16 CFR Part 1250; ASTM F963
Safety Standard for Baby Changing Products	16 CFR Part 1235; ASTM F2388
Safety Standard for Clothing Storage Units	16 CFR Part 1261; ASTM F2057
Conducting Time-for-Rupture Notch Tension Testing of Materials	ASTM E292
Linear-Elastic Plane-Strain Fracture Toughness of Metallic Materials	ASTM E399
Conducting Force Controlled Constant Amplitude Axial Fatigue Tests of Metallic Materials	ASTM E466
Measurement of Fracture Toughness	ASTM E1820
Metallic materials – Unified Method of Test for the Determination of Quasistatic Fracture Toughness	ISO 12135
Metallic materials – Method of test for the determination of quasistatic fracture toughness of welds	ISO 15653
Single Point Critical Crack Tip Open Displacement Testing at Cold Temperature (CTOD)	BS 7448 Part 1, 2; ISO 12135, ISO 15653; ASTM E1820
Stress Rupture of Metallic Materials	ASTM E139
Oxidative-Induction Time of Polyolefins by Differential Scanning Calorimetry	ASTM D3895
Transmission Contamination Specification	Ford ES5L2P-7W092-AA
Transmission Contamination Specification	Ford ESBC3P-7W092-BA
Hydraulic Fluid Power - Fluids - Method for Coding the Level of Contamination by Solid Particles	ISO 4406
Hydraulic Fluid Power - Fluid Contamination - Determination of Particulate Contamination by the Counting Method Using an Optical Microscope	ISO 4407
Road vehicles – Cleanliness of Components and Systems Only for: Section 7.4 – Liquid Extraction Section 9.2 – Standard Analysis	ISO 16232

¹The Consumer Product Safety Improvement Act (CPSIA) requires that every children's product subject to a federal consumer product safety requirement be tested by a Consumer Product Safety Commission (CPSC) accepted laboratory for compliance with the applicable federal children's product safety requirements. Accreditation by A2LA does not infer acceptance by the CPSC. Please verify this organization's acceptance status by using the CPSC's searchable database, located at <http://www.cpsc.gov/cgi-bin/labsearch/>.



Accredited Laboratory

A2LA has accredited

CAMBRIDGE MATERIALS TESTING LIMITED

Mississauga, Ontario, Canada

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 19th day of September 2023.

A blue ink signature of Mr. Trace McInturff, written over a horizontal line.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3977.09
Valid to April 30, 2025

For the tests to which this accreditation applies, please refer to the laboratory's Mechanical Scope of Accreditation.