



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

CAMBRIDGE MATERIALS TESTING LIMITED

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MECHANICAL

Valid To: October 31, 2024

Certificate Number: 3977.08

In recognition of the successful completion of the A2LA evaluation process accreditation is granted to this laboratory to perform the following types of tests on adhesives, platings and coatings, plastics, rubber, textiles, metals, fasteners, and construction materials:

Test	Test Method
Apparent Shear Strength of Single-Lap-Joint Adhesively Bonded Metal Specimens by Tension Loading (Metal-to-Metal)	ASTM D1002
Peel Resistance of Adhesives (T- Peel Test)	ASTM D1876
Determining Strength of Adhesively Bonded Rigid Plastic Lap-Shear Joints in Shear by Tension Loading	ASTM D3163
Strength Properties of Adhesively Bonded Plastic Lap-Shear Sandwich Joints in Shear by Tension Loading	ASTM D3164
Strength Properties of Adhesives in Shear by Tension Loading of Single-Lap-Joint Laminated Assemblies	ASTM D3165
Floating Roller Peel Resistance of Adhesives	ASTM D3167
Peel Adhesion of Pressure-Sensitive Tape	ASTM D3330/D3330M
Peel or Stripping Strength of Adhesive Bonds	ASTM D903
Weight [Mass] of Coating on Aluminum-Coated Iron or Steel Articles	ASTM A428/A428M
Weight [Mass] of Coating on Iron and Steel Articles with Zinc or Zinc Alloy Coatings	ASTM A90/A90M
Operating Salt Spray (Fog) Apparatus	ASTM B117
Measurement of Stain Resistance of Anodic Coatings on Aluminum	ASTM B136
Measurement of Coating Mass Per Unit Area on Anodically Coated Aluminum	ASTM B137
Measurement of Thickness of Anodic Coatings on Aluminum and of other Nonconductive Coatings on Nonmagnetic Base Metals with Eddy-Current Instruments	ASTM B244
Copper-Accelerated Acetic Acid- Salt Spray (Fog) Testing (CASS Test)	ASTM B368
Measurement of Metal and Oxide Coating Thickness by Microscopical Examination of Cross Section	ASTM B487
Measurement of Coating Thicknesses by the Magnetic Method: Nonmagnetic Coatings on Magnetic Basis Metals	ASTM B499

Test	Test Method
Microhardness of Electroplated Coatings	ASTM B578
Seal Quality of Anodic Coatings on Aluminum by Acid Dissolution	ASTM B680
Determining Mass Per Unit Area of Electrodeposited and Related Coatings by Gravimetric and Other Chemical Analysis Procedures	ASTM B767
Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments	ASTM D1654
Testing Water Resistance of Coatings Using Water Fog Apparatus	ASTM D1735
Testing Water Resistance of Coatings in 100% Relative Humidity	ASTM D2247
Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)	ASTM D2794
Chipping Resistance of Coatings	ASTM D3170/D3170M
Rating Adhesion by Tape Test	ASTM D3359
Film Hardness by Pencil Test	ASTM D3363
Abrasion Resistance of Organic Coatings by the Taber Abraser	ASTM D4060
Testing Water Resistance of Coatings Using Controlled Condensation	ASTM D4585/D4585M
Mandrel Bend Test of Attached Organic Coatings Only for: Method B - Cylindrical Mandrel Test	ASTM D522/D522M
Evaluating Degree of Rusting on Painted Steel Surfaces	ASTM D610
Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to Ferrous Metals and Nonmagnetic, Nonconductive Coatings Applied to Non-Ferrous Metals	ASTM D7091
Evaluating Degree of Blistering of Paints	ASTM D714
Testing Water Resistance of Coatings Using Water Immersion	ASTM D870
Abrasion Resistance of Organic Coatings by Falling Abrasive Only for: Method A - Falling Sand	ASTM D968
Measuring Coating Thickness by Magnetic-Field or Eddy Current (Electromagnetic) Testing Methods Except for: Section 6.2.1 Personnel Qualification	ASTM E376
Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Non-metallic Materials	ASTM G154
Seat Belt Assemblies Only for: Hardware; Corrosion Resistance, Sec. S5.2(a)	FMVSS 209
Gasoline Puddle Test for Gasoline Fill Areas	GM 9500P
Gasoline Dip Test for Painted Parts	GM 9501P
Evaluating Brittleness of Painted Plastics and Sealants by Means of a Mandrel	GM 9503P
Automotive Environmental Cycles	GM 9505P
Automotive Environmental Cycles Except for: Cycle T	GMW 14124
Copper-Accelerated Acetic Acid Salt Spray (CASS) Test	GMW 14458
Stone Impact Resistance of Coatings Only for: Method B and C	GMW 14700
Tape Adhesion Test for Paint Finishes	GMW 14829
Corrosion/Undercutting Scribe Creepback	GMW 15282
Scab Corrosion Creepback of Paint Systems on Metal Substrates	GMW 15288
Neutral Salt Spray (NSS) Test	GMW 3286
Corrosion Testing of Metallic and Other Inorganic Coatings on Metallic Substrates - Rating of Test Specimens and Manufactured Articles Subjected to Corrosion Tests	ISO 10289

Test	Test Method
Metallic and oxide coatings - Measurement of coating thickness Microscopical method	ISO 1463
Anodizing of aluminum and its alloys-Determination of mass per unit area (surface density) of anodic oxide coatings-Gravimetric method	ISO 2106
Paints and varnishes-Determination of film thickness Only for: Methods 6A, 6B, 7C, 7D	ISO 2808
Anodizing of aluminum and its alloys-Assessment of quality of sealed anodic oxidation coatings by measurement of the loss of mass after immersion in acid solution	ISO 3210
Corrosion tests in artificial atmospheres-Salt spray tests	ISO 9227
Chip Resistance of Surface Coatings	SAE J400
Specular Gloss	ASTM D523
Haze and Luminous Transmittance of Transparent Plastics Only for: Procedure B	ASTM D1003
Tear Resistance (Graves Tear) of Plastic Film and Sheeting	ASTM D1004
Melt Flow Rates of Thermoplastics by Extrusion Plastometer Only for: Method A	ASTM D1238
Vicat Softening Temperature of Plastics	ASTM D1525
Brittleness Temperature of Plastic Sheeting by Impact	ASTM D1790
Tensile-Impact Energy to Break Plastics and Electrical Insulating Materials	ASTM D1822
Specular Gloss of Plastic Films and Solid Plastics	ASTM D2457
Determining the Izod Pendulum Impact Resistance of Plastics Only for: Methods A, C and E	ASTM D256
Strapping, Non-metallic (and Joining Methods)	ASTM D3950
Standard Test Methods for Impact Resistance of Rigid Poly (Vinyl Chloride) (PVC) Building Products	ASTM D4226
Fluorescent Ultraviolet (UV) Lamp Apparatus Exposure of Plastics	ASTM D4329
Unnotched Cantilever Beam Impact Resistance of Plastics	ASTM D4812
Impact Resistance of Flat, Rigid Plastic Specimen by Means of a Striker Impacted by a Falling Weight (Gardner Impact)	ASTM D5420
Water Absorption of Plastics	ASTM D570
Flexural Properties of Unreinforced and Reinforced Plastic Lumber and Related Products	ASTM D6109
Determining the Charpy Impact Resistance of Notched Specimens of Plastics	ASTM D6110
Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials by Four-Point Bending	ASTM D6272
Determination of the Linear Coefficient of Thermal Expansion of Plastic Lumber and Plastic Lumber Shapes Between (-30 and 140) °F (-34.4 and 60) °C	ASTM D6341
Tensile Properties of Plastics	ASTM D638
Deflection Temperature of Plastics Under Flexural Load in the Edgewise Position	ASTM D648
Compressive Properties of Rigid Plastics	ASTM D695
Coefficient of Linear Thermal Expansion of Plastics Between (-30 and 30) °C with a Vitreous Silica Dilatometer	ASTM D696
Shear Strength of Plastics by Punch Tool	ASTM D732

Test	Test Method
Brittleness Temperature of Plastics and Elastomers by Impact	ASTM D746
Rockwell Hardness of Plastics and Electrical Insulating Materials	ASTM D785
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
Charpy Impact Test on Thin Specimens of Polyethylene Used in Pressurized Pipes	ASTM F2231
Flammability of Interior Polymeric Materials, Horizontal Test Method	FMVSS 302
Determination of Impact Resistance of Plastic Components Except for: Method B	GMW 14093
Determining the Flammability of Interior Trim Materials	GMW 3232
Plastics-Determination of the melt mass-flow rate (MFR) and the melt volume-flow rate (MVR) of thermoplastics Part 1: Standard Method Only for: Procedure A	ISO 1133-1
Plastics-Methods for determining the density of non-cellular Plastics Part 1: Immersion method, liquid pycnometer method and titration method Only for: Method A	ISO 1183-1
Plastics-Determination of flexural properties	ISO 178
Plastics-Determination of Charpy impact properties Part 1: Non-instrumented impact test	ISO 179-1
Plastics-Determination of Izod Impact Strength	ISO 180
Plastics-Standard atmospheres for conditioning and testing	ISO 291
Plastics-Thermoplastic Materials-Determination of Vicat softening temperature (VST)	ISO 306
Road vehicles, and tractors and machinery for agriculture and forestry-Determination of burning behavior of interior materials	ISO 3795
Plastics-Determination of tensile properties Part 1: General principles	ISO 527-1
Plastics-Determination of tensile properties Part 2: Test conditions for moulding and extrusion plastics	ISO 527-2
Plastics-Determination of compressive properties	ISO 604
Plastics-Determination of water absorption	ISO 62
Plastics-Determination of temperature of deflection under load Part 1: General test methods	ISO 75-1
Plastics-Determination of temperature of deflection under Load Part 2: Plastics and ebonite	ISO 75-2
Plastics-Determination of the brittleness temperature by impact	ISO 974
Flammability of Polymeric Interior Materials-Horizontal Test Method	SAE J369
Rubber Property-Brittleness Point of Flexible Polymers and Coated Fabrics	ASTM D2137
Rubber Property - Durometer Hardness	ASTM D2240
Rubber Property - Compression Set Only for: Method B	ASTM D395

Test	Test Method
Vulcanized Rubber and Thermoplastic Elastomers - Tension	ASTM D412
Rubber Property-Adhesion to Flexible Substrate Only for: Machine Method	ASTM D413
Rubber Property-Adhesion to Rigid Substrates Only for: Method A	ASTM D429
Rubber Properties in Compression	ASTM D575
Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers	ASTM D624
Rubber, vulcanized or thermoplastic-Determination of compression set Part 1: At ambient or elevated temperatures	ISO 815-1
Rubber, vulcanized or thermoplastic-Determination of compression set Part 2: At low temperatures	ISO 815-2
Determination of Delta Ferrite Content	AMS 2315
Evaluating the Microstructure of Graphite in Iron Castings	ASTM A247
Determining Hardenability of Steel	ASTM A255
Detecting Susceptibility to Intergranular Attack in Austenitic Stainless Steels	ASTM A262
Mechanical Testing of Steel Products	ASTM A370
Macroetch Testing of Tool Steel Bars	ASTM A561
Macroetch Testing of Consumable Electrode Remelted Steel Bars and Billets	ASTM A604/A604M
Steel Castings, Stainless, Instrument Calibration for Estimating Ferrite Content	ASTM A799/A799M
Steel Casting, Austenitic Alloy, Estimating Ferrite Content Thereof	ASTM A800/A800M
Detecting Detrimental Intermetallic Phase in Duplex Austenitic/Ferritic Stainless Steels	ASTM A923
Tension Testing Wrought and Cast Aluminum- and Magnesium-Alloy Products	ASTM B557
Strapping, Flat Steel and Seals	ASTM D3953
Brinell Hardness of Metallic Materials	ASTM E10
Estimating the Depth of Decarburization of Steel Specimens	ASTM E1077
Young's Modulus, Tangent Modulus, and Chord Modulus	ASTM E111
Determining Average Grain Size	ASTM E112
Preparing Sulfur Prints for Macrostructural Evaluation	ASTM E1180
Characterizing Duplex Grain Sizes	ASTM E1181
Determining the Inclusion or Second-Phase Constituent Content of Metals by Automatic Image Analysis	ASTM E1245
Assessing the Degree of Banding or Orientation of Microstructures	ASTM E1268
Determining Average Grain Size Using Semiautomatic and Automatic Image Analysis	ASTM E1382
Stress Rupture Tests of Metallic Materials	ASTM E139
Standard Hardness Conversion Tables for Metals Relationship Among Brinell Hardness, Vickers Hardness, Rockwell Hardness, Superficial Hardness, Knoop Hardness, Scleroscope Hardness and Leeb Hardness	ASTM E140
Rockwell Hardness of Metallic Materials	ASTM E18

Test	Test Method
Conducting Drop-Weight Test to Determine Nil-Ductility Transition Temperature of Ferritic Steels	ASTM E208
Elevated Temperature Tension Tests of Metallic Materials	ASTM E21
Notched Bar Impact Testing of Metallic Materials	ASTM E23
for Bend Testing of Material for Ductility	ASTM E290
Conducting Time-for-Rupture Notch Tension Tests of Materials	ASTM E292
Preparation of Metallographic Specimens	ASTM E3
Macroetching Metals and Alloys	ASTM E340
Tension Testing of Metallic Foil	ASTM E345
Macroetch Testing Steel Bars, Billets, Blooms and Forgings	ASTM E381
Microindentation Hardness of Materials Only for: (50 to 1000) g load	ASTM E384
Microetching Metals and Alloys	ASTM E407
Determining the Inclusion Content of Steel Except for: Magnetic Particle Method	ASTM E45
Plastic Strain Ratio “r” for Sheet Metal	ASTM E517
Determining Volume Fraction by Systematic Manual Point Count	ASTM E562
Tensile Strain-Hardening Exponents (n-Values) of Metallic Sheet Materials	ASTM E646
Preparing and Evaluating Specimens for Automatic Inclusion Assessment of Steel	ASTM E768
Tension Testing of Metallic Materials	ASTM E8/E8M
Reflected-Light Photomicrography	ASTM E883
Compression Testing of Metallic Materials at Room Temperature	ASTM E9
Standard Test Method for Vickers Hardness and Knoop Hardness of Metallic Materials Only for: (>1 to 50) kg	ASTM E92
Estimating the Largest Grain Observed in a Metallographic Section (ALA Grain Size)	ASTM E930
Determining Decarburization and Carburization in Hardened and Tempered Threaded Steel Bolts, Screws, Studs, and Nuts	ASTM F2328
Detecting Susceptibility to Intergranular Corrosion in Wrought, Nickel Rich, Chromium-Bearing Alloys	ASTM G28
Pitting and Crevice Corrosion Resistance of Stainless Steels and Related Alloys by Use of Ferric Chloride Solution Only for: Methods A & B	ASTM G48
Metallic Sheet, Mechanical Properties Testing	GMW 3335
Metallic materials - Sheet and strip - Determination of plastic strain ratio	ISO 10113
Metallic materials - Sheet and strip - Determination of tensile strain hardening exponent	ISO 10275
Metallic materials - Charpy pendulum impact test Part 1: Test method	ISO 148-1
Geometrical Product Specifications (GPS) - Surface Texture: Profile method - Nominal characteristics of contact (Stylus) instruments	ISO 3274
Geometrical Product Specifications (GPS) - Surface Texture: Profile method - Terms, definitions, and surface texture parameters	ISO 4287

Test	Test Method
Steels-Micrographic determination of the apparent grain size	ISO 643
Metallic materials - Vickers hardness test Part 1: Test method	ISO 6507-1
Metallic materials - Rockwell hardness test Part 1: Test method	ISO 6508-1
Metallic materials-Tensile testing Part 1: Method of test at room temperature	ISO 6892-1
Metallic materials-Tensile Testing Part 2: Method of test at elevated temperature	ISO 6892-2
Methods of Determining Hardenability of Steels	SAE J406
Hardness Tests & Hardness Number Conversion (Vickers, Brinell, & Rockwell Tests)	SAE J417
Measuring Case Depth	SAE J423
Surface Texture, Roughness (Ra), Peak Count (Pc), and Mean Profile Spacing, (Rsm) Measurement of Metallic Coated and Uncoated Steel Sheer/Strip to be Formed and/or to be Painted	SAE J911
Material Specifications-Welding Rods, Electrodes and Filler Metals	ASME Boiler & Pressure Vessel Code Section II, Part C
Welding and Brazing Qualifications Except for: Liquid Penetrant Testing	ASME Boiler & Pressure Vessel Code Section IX
Guided Bend Test for Ductility of Welds	ASTM E190
Mechanical Testing of Welds	AWS B4.0
Filler metals and allied materials for metal arc welding	CSA W48
Oil and gas pipeline systems	CSA-Z662
Welding - Fusion-welded joints in steel, nickel, titanium and their alloys (beam welding excluded) – Quality levels for imperfections	ISO 5817
General requirements for rolled or welded structural quality steel/Structural quality steel Except for: L shape full section tensile testing Non-destructive testing	CSA-G40.20/G41.21
Determining the Mechanical Properties of Externally and Internally Threaded Fasteners, Washers, Direct Tension Indicators and Rivets Except for: Section 5.6 Test Method for Measuring Compression Load (Direct Tension Indicators) Section 7. Test for Embrittlement of Metallic Coated Externally Threaded Fasteners	ASTM F606/F606M
Mechanical properties of fasteners made of carbon steel and alloy steel Part 1: Bolts, screws and studs with specified property classes-Coarse thread and fine pitch thread Except for: Section 9.8 Head Soundness & Section 9.15 Surface Discontinuities	ISO 898 -1
Grey Scale for Colour Change	AATCC EP1
Grey Scale for Staining	AATCC EP2
9 Step Chromatic Transference Scale	AATCC EP8
Colourfastness to Crocking: Crockmeter Method	AATCC TM8
Abrasion Resistance of Textile Fabrics (Rotary Platform, Double-Head Method)	ASTM D3884
Breaking Strength and Elongation of Textile Fabrics (Grab Test)	ASTM D5034

Test	Test Method
Breaking Force and Elongation of Textile Fabrics (Strip Method)	ASTM D5035
Tearing Strength of Fabrics by Trapezoid Procedure	ASTM D5587
Textiles-Test for colour fastness Part A02: Grey scale for assessing change in colour	ISO 105-A02
Simulated Service Testing of Wood and Wood-Based Finish Flooring Only for: Coefficient of Friction	ASTM D2394
Chemical tests	
Determination of Carbon, Sulphur, Nitrogen, and Oxygen in Steel, Iron, Nickel and Cobalt Alloys by Combustion and Inert Gas Fusion Techniques	ASTM E1019
Determination of Various Elements by Direct Current Plasma Atomic Emission Spectrometry (Modified for ICP Argon Optical Emission Spectrometry)	ASTM E1097 CMTL Modified
Standard Practice for Describing and Specifying Inductively Coupled Plasma Atomic Emission Spectrometers	ASTM E1479
Determination of Hydrogen in Titanium and Titanium Alloys by the Inert Gas Fusion Thermal Conductivity/Infrared Detection Method	ASTM E1447; Applied to Steel
Determination of Oxygen and Nitrogen in Titanium and Titanium Alloys by Inert Gas Fusion	ASTM E1409



Accredited Laboratory

A2LA has accredited

CAMBRIDGE MATERIALS TESTING LIMITED

Cambridge, 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 25th day of April 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 3977.08
Valid to October 31, 2024

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