



## TESTING AND CALIBRATION LABORATORY ACCREDITATION PROGRAM (LAP)

### Scope of Accreditation

Accredited Laboratory No. 6

**Legal Name of Accredited Laboratory:** Element Materials Technology Canada Inc.

Location Name or Operating as (if applicable): CAMBRIDGE LABORATORY

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<b>SCC File Number:</b>	15012
<b>Accreditation Standard(s):</b>	ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories
<b>Fields of Testing:</b>	Chemistry/Physical, Mechanical/Physical
<b>Initial Accreditation:</b>	1983-04-12
<b>Most Recent Accreditation:</b>	2021-02-10
<b>Accreditation Valid to:</b>	2023-04-12

#### SCC Group Accreditation:

This laboratory is a part of a Group Accreditation with the following facilities in accordance with SCC's policy on Group Accreditation documented in the Accreditation Services Accreditation Program Overview.

15106 - Element Materials Technology Canada Inc., BURLINGTON LABORATORY,  
1440 Grahams Lane, Unit #11 Burlington, ON L7S 1W3, Accredited Laboratory No. 65

#### METALLIC ORES AND PRODUCTS

Articles of Metal:

#### All Forms, Articles of Metal

Refer to minor sub-heading: Cast, Forged, Welded or Processed Metal Components



**Cast, Forged, Welded or Pressed Metal Components**

**(Chemistry)**

ASTM E1019	Standard Test Methods for Determination of Carbon, Sulfur, Nitrogen, and Oxygen in Steel, Iron, Nickel, and Cobalt Alloys by Various Combustion and Inert Gas Fusion Techniques
CHE-1	Chemical Analysis of Carbon, Low-Alloy & Stainless Steel and Aluminum and Aluminum Alloys by OES (Optical Emission Spectroscopy) Quantitative Analysis of: (ASTM E1251, E1086 & E415) Aluminum Alloys Carbon and Low Alloy Steels Stainless Steels
CHEM-1004	Analysis of Metals and Metal Alloys - THERMO ICAP 6500 (ASTM D1976 Modified) Aluminum Alloys Carbon and Low Alloy Steels Cast Irons Cobalt Alloys Copper and Brass Alloys Nickel Alloys Stainless Steels Titanium Alloys Tool Steels Zinc Alloys



CHEM-20	<p>Analysis of Oxygen, Nitrogen and Hydrogen by Eltra ONH2000 Combustion (ASTM E1409, E1447, E1937 Modified, &amp; ASTM E1019 Modified)</p> <p>Analysis of Hydrogen in Steel and Ferrous Alloy</p> <p>Carbon and Low Alloy Steels</p> <p>Cast Irons</p> <p>Cobalt Alloys</p> <p>Nickel Alloys</p> <p>Stainless Steel</p> <p>Titanium and Titanium Alloys</p> <p>Tool Steels</p>
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**(Mechanical)**

ASTM A370, ASTM B557/557M, ASTM E8/E8M	Standard Test Methods and Definitions for Mechanical Testing of Steel Products Except for: Annexes 2 and 10
ASTM A770	Standard Specification for Through-Thickness Tension of Steel Plates for Special Applications
ASTM B769	Standard Test Method for Shear Testing of Aluminum Alloys
ASTM E10	Standard Test Method for Brinell Hardness of Metallic Materials
ASTM E139	Standard Test Methods for Conducting Creep, Creep-Rupture and Stress-Rupture Tests of Metallic Materials Only for: Stress-Rupture
ASTM E23	Standard Test Methods for Notched Bar Impact Testing of Metallic Materials
ASTM E292	Standard Test Methods for Conducting Time-for-Rupture Notch Tension Tests of Materials
ASTM E517	Standard Test Method for Plastic Strain Ratio $r$ for Sheet Metal
ASTM E646	Standard Test Method for Tensile Strain-Hardening Exponents (n-Values) of Metallic Sheet Materials



ASTM F519	Standard Test Method for Mechanical Hydrogen Embrittlement Evaluation of Plating/Coating Processes and Service Environments
ASTM F606/F606M	Standard Test Methods for Determining the Mechanical Properties of Externally and Internally Threaded Fasteners, Washers, Direct Tension Indicators and Rivets Except for: sections 5 and 6

**(Metallography)**

ASTM A247	Standard Test Method for Evaluating the Microstructure of Graphite in Iron Castings
ASTM A262	Standard Practices for Detecting Susceptibility to Intergranular Attack in Austenitic Stainless Steels
ASTM A428	Standard Test Method for Weight [Mass] of Coating on Aluminum-Coated Iron and Steel Articles
ASTM A800, A799	Standard Practice for Steel Casting, Austenitic Alloy, Estimating Ferrite Content Thereof
ASTM A90, ASTM B767, FLTM AQ101-01	Standard Test Method for Weight [Mass] of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings
ASTM A923/ASTM A1084	Standard Test Methods for Detecting Detrimental Intermetallic Phase in Duplex Austenitic/Ferritic Stainless Steels
ASTM B456 –X4	Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium
ASTM B487	Standard Test Method for Measurement of Metal and Oxide Coating Thickness by Microscopical Examination of a Cross Section
ASTM B499, ASTM B244, ASTM D1186, ASTM E376, ASTM D1400, ASTM D7091, ISO 2808	Standard Test Method for Measurement of Coating Thickness by the Magnetic Method: Nonmagnetic Coatings on Magnetic Basis



	Metals Only for: 5.4.4, 5.5.7 and 5.5.8
ASTM B504	Standard Test Method for Measurement of Thickness of Metallic Coatings by the Coulometric Method
ASTM B764	Standard Test Method for Simultaneous Thickness and Electrode Potential Determination of Individual Layers in Multilayer Nickel Deposit (STEP-Test)
ASTM B962	Standard Test Methods for Density of Compacted or Sintered Powder Metallurgy (PM) Products using Archimedes' Principle
ASTM B963	Standard Test Methods for Oil Content, Oil-Impregnation Efficiency and Surface-Connected Porosity of Sintered Powder Metallurgy (PM) Products using Archimedes' Principle
ASTM C1617	Standard Practice for Quantitative Accelerated Laboratory Evaluation of Extraction Solutions Containing Ions Leached from Thermal Insulation on Aqueous Corrosion of Metals
ASTM C692	Standard Test Method for Evaluating the Influence of Thermal Insulations on External Stress Corrosion Cracking Tendency of Austenitic Stainless Steel [only for procedure B drip test]
ASTM E1077, SAE J121, SAE J419	Standard Test Method for Estimating the Depth of Decarburization of Steel Specimens
ASTM E112	Standard Test Methods for Determining Average Grain Size
ASTM E1245	Standard Practice for Determining the Inclusion or Second Phase Constituent Content of Metals by Automatic Image Analysis
ASTM E18	Standard Test Methods for Rockwell Hardness of Metallic Materials
ASTM E3	Standard Guide for Preparation of Metallographic Specimens



ASTM E340	Standard Test Methods for Macroetching Metals and Alloys
ASTM E381	Standard Method of Macroetch Testing of Steel Bars, Billets, Blooms and Forgings
ASTM E384	Standard Test Method for Microindentation Hardness of Materials
ASTM E407	Standard Practice for Microetching Metals and Alloys
ASTM E45	Standard Test Method for Determining the Inclusion Content of Steel (Manual and Automated Methods)
ASTM E562	Standard Test Method for Determining Volume Fraction by Systematic Manual Point Count
ASTM E92	Standard Test Methods for Vickers Hardness and Knoop Hardness of Metallic Materials
ASTM G28	Standard Test Methods of Detecting Susceptibility to Intergranular Corrosion in Wrought, Nickel-Rich chromium Bearing Alloys
ASTM G48	Standard Test Methods for Pitting and Crevice Corrosion Resistance of Stainless Steels and Related Alloys by Use of Ferric Chloride Solution
ASTM G87	Standard Practice for Conducting Moist SO <sub>2</sub> Tests
AWSD1.1 (Only for sections 6.9 and 7.8), AWS D1.2 (Only for section 3, 5.14, 6.4.5.2, 6.4.5.4, and 6.4.5.5), AWSD17.1 (Only for sections 5, 7.1.2 and 7.3), FPS 15.08, PS-9472, ISO 5817	Structural Welding Code-Steel
SAE ARP 1947	Dendritic Arm Spacing Structural Aircraft Quality D357 Aluminum Alloy Castings. Determination and Acceptance of

**(Weld Properties)**

ASME Section II Part A, Section II Part B, Section VIII, Section IX	Boiler and Pressure Vessel Code Sections II Only for , SA-193/SA193M, SA-194/SA194M, SA-213/SA-213M, SA-240/SA-240M, SA-325, SA-370,SA450/SA450M, ,
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	SA-530/SA-530M, SA-540/SA-540M, , SA-962/SA-962M, III, Section VIII Only for: UG-84 and Section IX Only for: QW-144, QW-150, QW-160, , QW-184, QW-194, QW-462.1, QW-462.4, QW-462.5, QW-462.12
ASTM A370, A450, A53	Standard Test Methods and Definitions for Mechanical Testing of Steel Products
ASTM E190	Standard Test Method for Guided Bend Test for Ductility of Welds
AWS D1.1	Structural Welding Code-Steel Only for: sections 6.9 and 7.8
AWS D1.2	Structural Welding Code-Aluminum Only for: 3, 5.14, 6.4.5.2, 6.4.5.4, and 6.4.5.5
CSA-W47 .1	Certification of Companies for Fusion Welding of Steel Only for: 9.9, 9.10, 9.11, 9.14, 11.6, 11.7
CSA-W47 .2	Certification of Companies for Fusion Welding of Aluminum Only for: Sections 10.4, 10.5, 10.6, 10.7

Other

(Environmental)

ASTM B117, FLTM BI103-01, ISO 9227, JISZ2371, NES M0140, SAE USCAR-1 TSH 1552G, DIN 50021, ISO 7253, GMW3286,	Standard Test Methods of Salt Spray Testing
ASTM B368, , BQ 105-01, GMW 14458	Standard Test Method for Copper Accelerated Acetic Acid Salt Spray (Fog) Testing (CASS Test)
ASTM B858	Standard Test Method for Ammonia Vapour Test for Determining Susceptibility to Stress Corrosion Cracking in Copper Alloys
ASTM D1654, GMW15282	Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments
ASTM D1735, , ISO 6270-1, GMW14729	Standard Testing Practice for Water Resistance of Coatings Using Water Fog Apparatus



ASTM D2244	Standard Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates
ASTM D2247, FLTM BI-104-02, FLTM BJ 107-03, DIN 50017, ISO 6270-1, ASTM D4585	Standard Practice for Testing Methods of Condensing Water Resistance of Coatings in 100% Relative Humidity
ASTM D3170, , SAE J400, GMW14700	Standard Test Method for Chipping Resistance of Coatings
ASTM D3359, FLTM BI 106-01, , GMW14829, ASTM D522, ISO 2409	Standard Test Methods for Measuring Adhesion by Tape Test
ASTM D3363	Standard Test Method for Film Hardness by Pencil Test
ASTM D4060	Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser
ASTM D523	Standard Test Method for Specular Gloss
ASTM D610 D714 GMW15356, GMW15357, GMW15358, GMW15359	Standard Practice for Evaluating Degree of Rusting on Painted Steel Surfaces
ASTM D870, FLTM BI 104-01	Standard Practice for Testing Water Resistance of Coatings Using Water Immersion
ASTM E1164	Standard Practice for Obtaining Spectrometric Data for Object-Colour Evaluation (Only for Reflectance)
Chrysler 463PB-31-01, GMW14333, GMW14334	Resistance to Fuels of Exteriors Automotive Materials and Components Except for: Technology Approvals using fuel EDS-T-7014
Chrysler LP-463PB-52-01, ASTM D870, FLTM BI104-01, LP463PB-22-01, ASTM D5894, ASTM D2803, FLTM BI123-01, FLTM BI123-03, GMW14872, Ford CETP 00.00-L-467, GMW 14124, SAE J2334	Standard Test Method for Conducting Manual Cycling Corrosion Test Except for: cycle T
GMW 14671	Organic Coating Performance for Underhood and Underbody Components (Only for sections 3.9.1 and 3.9.3)
GMW 15288	Scab Corrosion Creepback of Paint Systems on Metal Substrates
HES D6501	General Test Methods for Coatings





<p>NES M0158 CCT#1, #2, #4, ASTM G85, SAE J2334, VDA621-415, MIL-STD-810 Only For: Method 509.6 , FLTM BI123-01, FLTM BI123-03, TSH 1555G, GMW14872, GMW14124</p>	<p>Standard Test Method for Conducting Automatic Cycle Testing of Coated Alloys          Except for: cycle T</p>
<p>SAE J1545</p>	<p>Instrumental Colour Difference Measurement for Exterior Finishes, Textiles and Coloured Trim (Except for section 4.4.2 Multiangle Measurements)</p>

Number of Scope Listings: 76

**Notes:**

**ISO/IEC 17025:2005:** General Requirements for the Competence of Testing and Calibration Laboratories

This document forms part of the Certificate of Accreditation issued by the Standards Council of Canada (SCC). The original version is available in the Directory of Accredited Laboratories on the SCC website at [www.scc.ca](http://www.scc.ca).

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