SCOPE OF ACCREDITATION

Element Materials Technology Canada Inc.  
CAMBRIDGE LABORATORY  
15 High Ridge Court  
Cambridge, ON  
N1R 7L3  

Accredited Laboratory No. 6  
(Conforms with requirements of ISO/IEC 17025:2005)

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CLIENTS SERVED: All interested parties  
FIELDS OF TESTING: Mechanical/Physical

INITIAL ACCREDITATION DATE: 1983-04-12  
SCOPE ISSUED ON: 2019-04-22  
ACCREDITATION VALID TO: 2023-04-12
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

(Mechanical)

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTM A770</td>
<td>Standard Specification for Through-Thickness Tension of Steel Plates for Special Applications</td>
</tr>
<tr>
<td>ASTM B769</td>
<td>Standard Test Method for Shear Testing of Aluminum Alloys</td>
</tr>
<tr>
<td>ASTM E10</td>
<td>Standard Test Method for Brinell Hardness of Metallic Materials</td>
</tr>
<tr>
<td>ASTM E517</td>
<td>Standard Test Method for Plastic Strain Ratio $r$ for Sheet Metal</td>
</tr>
<tr>
<td>ASTM E646</td>
<td>Standard Test Method for Tensile Strain-Hardening Exponents (n-Values) of Metallic Sheet Materials</td>
</tr>
<tr>
<td>ASTM F606/F606M</td>
<td>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</td>
</tr>
</tbody>
</table>

(Metallography)

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTM A262</td>
<td>Standard Practices for Detecting Susceptibility to Intergranular Attack in Austenitic Stainless Steels</td>
</tr>
</tbody>
</table>
Aluminum-Coated Iron and Steel Articles


ASTM A923/ASTM A1084  Standard Test Methods for Detecting Detrimental Intermetallic Phase in Duplex Austenitic/Ferritic Stainless Steels


ASTM B487  Standard Test Method for Measurement of Metal and Oxide Coating Thickness by Microscopical Examination of a Cross Section


ASTM B504  Standard Test Method for Measurement of Thickness of Metallic Coatings by the Coulometric Method


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 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 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 SO₂ 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
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

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
<table>
<thead>
<tr>
<th>Standard/Code</th>
<th>Description</th>
</tr>
</thead>
</table>
| 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 B858 | Standard Test Method for Copper Accelerated Acetic Acid Salt Spray (Fog) Testing (CASS Test) |
| ASTM D1654, GMW15282 | Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments |
| ASTM D2244 | Standard Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates |
| 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  
ASTM E1164  
Chrysler 463PB-31-01, GMW14333, GMW14334  
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  
GMW 14671  
GMW 15288  
HES D6501  
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  
SAE J1545  

Standard Practice for Obtaining Spectrometric Data for Object-Colour Evaluation (Only for Reflectance)  
Resistance to Fuels of Exteriors Automotive Materials and Components  
Except for: Technology Approvals using fuel EDS-T-7014  
Except for: cycle T  
Organic Coating Performance for Underhood and Underbody Components (Only for sections 3.9.1 and 3.9.3)  
Scab Corrosion Creepback of Paint Systems on Metal Substrates  
General Test Methods for Coatings  
Except for: cycle T  
Instrumental Colour Difference Measurement for Exterior Finishes, Textiles and Coloured Trim (Except for section 4.4.2 Multiangle Measurements)  

Notes:  

Elias Rafoul, Vice President  
Accreditation Services  

Date: 2019-04-22  

Number of Scope Listings: 72  
SCC 1003-15/12
Partner File #0
Partner: None