

SCOPE OF ACCREDITATION

Exova Canada Inc.
CAMBRIDGE LABORATORY
15 High Ridge Court P.O. Box 24069
Cambridge, ON
N1R 8E6

Accredited Laboratory No. 6
(Conforms with requirements of CAN-P-4E (ISO/IEC 17025:2005))

CONTACT: Mr. Roger Graham
TEL: (519) 621-8191
FAX: (519) 621-7700
EMAIL: roger.graham@exova.com
URL: www.exova.com

CLIENTS SERVED: All interested parties

FIELDS OF TESTING: Mechanical/Physical

ISSUED ON: 2011-01-26

VALID TO: 2013-04-12

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)

ASTM A370, ASTM B557/557M, ASTM E8/E8M	Standard Test Methods and Definitions for Mechanical Testing of Steel Products
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 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

(Metallography)

ASTM A247	Standard Test Method for Evaluating the Microstructure of Graphite in Iron Castings
ASTM A262	Standard Practice 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, GM9733P, ASTM B767, FLTM AQ101-01	Standard Test Methods for Weight [Mass] of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings
ASTM B328	Standard Test Method for Density, Oil Content, and Interconnected Porosity of Sintered Powder Metal Structural Parts and Oil Impregnated Bearings
ASTM B456 X4	Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium & Nickel Plus Chromium
ASTM B487	Standard Test Methods 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	Standard Test Method for Measurement of Coating Thickness by the Magnetic Method: Nonmagnetic Coatings on Magnetic Basis Metals
ASTM B504	Standard Test Method for Measurement of Thickness of Metallic Coatings by Coulometric Method

ASTM B764	Standard Test Method for Simultaneous Thickness and Electrode Potential Determination of Individual Layers in Multilayer Nickel Deposit (STEP-Test)
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	Standard Test Method for Estimating the Depth of Decarburization of Steel Specimens
ASTM E112	Standard Test Methods for Determining the 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 Knoop and Vickers Hardness of Materials
ASTM E407	Standard Test Methods for Microetching Metals and Alloys
ASTM E45, ASTM E1122	Standard Practice for Determining the Inclusion Content of Steel (Manual and Automated Methods)
ASTM E562	Standard Practice for Determining Volume Fraction by Systematic Manual Point Count
ASTM G110	Evaluating Intergranular Corrosion Resistance of Heat Treatable Al. Alloys by Immersion in Sodium Chloride + Hydrogen Peroxide Solution
ASTM G28	Standard Method of Detecting Susceptibility to Intergranular Corrosion in Wrought, Nickel-Rich chromium Bearing Alloys
ASTM G48/A923C	Standard Test Methods for Pitting and Crevice Corrosion Resistance of Stainless Steels and Related Alloys
ASTM G87	Standard Practice for Conducting Moist SO ₂ Tests
AWSD1.1,AWS D1.2,AWSD17.1, BAERD GEN-010, BATS 2751, BATS 2752, FPS 15.08, GM 4460P, PS- 9472	Structural Welding Code - Steel Metallographic Evaluation of Welds
MET-17	Failure Analysis (using accredited laboratory test methods)
SAE ARP 1947	Dendritic Arm Spacing Structural Aircraft Quality D357 Aluminum Alloy Castings. Determination and Acceptance of

(Weld Properties)

ASME	Boiler and Pressure Vessel Code Only for: Sections II, III, VIII and IX Section
ASTM A370, A450, A53	Standard Test Methods and Definitions for Mechanical Testing of Steel Produces
ASTM E190	Standard Test Method for Guided Bend Test for Ductility of Welds
AWS D1.1	Structural Welding Code - Steel
AWS D1.2	Structural Welding Code - Aluminum
CSA-W47 .1	Certification of Companies for Fusion Welding of Steel
CSA-W47 .2	Certification of Companies for Fusion Welding of Aluminum
GM 4460P	Weldments - Test Methods 1 through 5

Other

(Environmental)

ASTM B117, GM 4298P, FLTM BI103-01, ISO 9227, JISZ2371, NES M0140, SAE USCAR-1 TSH 1552G, DIN 50021, ISO 7253, GMW3286, GME60206	Standard Test Methods of Salt Spray Testing
ASTM B368, GM 4476P, BQ 105-01	Standard Test Method for Copper Accelerated Acetic Acid Salt Spray (Fog) Testing (CASS Test)
ASTM D1654, GMW15282, GM9102P	Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments
ASTM D1735, GM 4465P, ISO 6270-1, GMW14729	Standard Testing Practice for Water Resistance of Coatings Using Water Fog Apparatus
ASTM D2247, FLTM BI-104-02, FLTM BJ 107-03, DIN 550017, ISO 6270-1, ASTM D4585	Standard Practice for Testing Methods of Condensing Water Resistance of Coatings in 100% Relative Humidity
ASTM D3170, GM9508P, SAE J400, GMW14700	Standard Test Method for Chipping Resistance of Coatings Alloys
ASTM D3359, FLTM BI 106-01, GM9071P, GMW14829, ASTM D522	Standard Test Methods for Measuring Adhesion by Tape Test
ASTM D3363	Standard Test Method for Film Hardness by Pencil Test
ASTM D523	Standard Test Method for Specular Gloss
ASTM D610 D714 GMW15356, GMW15357, GMW15358, GMW15359	Standard Test Method for Evaluating Degree of Blistering of Paints Standard Test
ASTM D870, FLTM BI 104.01	Standard Practice for Testing Water Resistance of Coatings Using Water Immersion

Chrysler 463PB-31-01, GMW14333, GMW14334	Resistance to Fuels of Exteriors Automotive Materials and Components
Chrysler LP-463PB-52-01 GM9511P, ASTM D870, FLTM BI104-01, GM 9682P, GM9505P, LP463PB-22-01, BQ004-01, ASTM D5894, ASTM D2803, FLTM BI123-01, FLTM BI123-03, ASTM D2803, GMW14872, GMW14124, Ford CETP 00.00-L-467	Standard Test Method for Conducting Manual Cycling Corrosion Test
GM 9540P; GM 9511P; GM 9505P, NES M0158 CCT#1, #2, #4, ASTM G85, SAE J2334, VDA621-415, MIL-STD-810F, FLTM BI123-01, FLTM BI123-03, TSH 1555G, GM9505P, GMW14872, GMW14124	Standard Test Method for Conducting Automatic Cycle Testing of Coated Alloys
GM9500P	Gasoline Puddle Test for Gasoline Fill Areas
GM9501P	Gasoline Dip Test for Painted Plastics
HES D6501	General Test Methods for Coatings

Notes:

CAN-P-4E (ISO/IEC 17025): General Requirements for the Competence of Testing and Calibration Laboratories (ISO/IEC 17025-2005)

S. Cross, Director, Conformity Assessment

Date: 2011-01-26

Number of Scope Listings: 66

SCC 1003-15/12

Partner File #0

Partner: None