

## SCOPE OF ACCREDITATION

**CAMBRIDGE MATERIALS TESTING LIMITED**  
**1177 Franklin Blvd.**  
**Cambridge, ON**  
**N1R 7W4**

Accredited Laboratory No. 59  
(Conforms with requirements of CAN-P-4E (ISO/IEC 17025:2005))

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CLIENTS SERVED: Commercial any party

FIELDS OF TESTING: Chemical/Physical, Mechanical/Physical, Thermal & Fire Resistance

ISSUED ON: 2011-03-15

VALID TO: 2013-08-08

### **ELASTOMERS AND PROTECTIVE AND OTHER COATINGS**

#### **Adhesives (Organic Resins) and Glues:**

##### **Adhesives**

ASTM D1002	Test Method for Apparent Shear Strength of Single-Lap-Joint Adhesively Bonded Metal Specimens by Tension Loading
ASTM D1876	Peel Resistance of Adhesives (T-Peel Test)
ASTM D3163	Test Method for Determining the Strength of Adhesively Bonded Rigid Plastic Lap Shear Joints in Shear by Tensile Loading
ASTM D3164	Strength Properties of Adhesively Bonded Plastic Lap-Shear

## Sandwich Joints in Shear by Tensile Loading

ASTM D3165	Strength Properties of Adhesives in Shear by Tension Loading of Single-Lap-Joint Laminated Assemblies
ASTM D3167	Test Method for Floating Roller Peel Resistance of Adhesives
ASTM D3330	Peel Adhesion of Pressure Sensitive Tape at 180° Angle
ASTM D816	Test Methods for Rubber Cements Only for: Method A, B, C
ASTM D903	Test Method for Peel or Stripping Strength of Adhesive Bonds
ASTM D904	Exposure of Adhesive Specimens to Artificial Light
FLTM BU 112-02	Peel Adhesion of Pressure Sensitive Tapes Only for: Method A, B, D, E
GM 9774P	Molding and Emblem Adhesion Test Pluck Resistance
GM 9795P	Adhesion and Durability of Bonded Weatherstrip - Pressure Sensitive Tape - 90° Peel Test
GM 9797P	Cleavage Peel Test
GM 9832P	Odor Acceptability-Can Test
GM 9838P	Tape Lamination to Automotive Components
SAE J1525	Lap Shear Test for Automotive-Test Adhesives for Fibre Reinforced Plastic (FRP) Bonding

## **Paints; Varnishes; Inks; Coatings; and Allied Products:**

### **Application and Working Properties**

Refer to minor sub-heading: *Paints and Protective Coatings*

### **Applied Coatings Performance**

see also

All Forms, Articles of Metal

Fabrics

AMS-QQ-C-320	Chromium Plating (Electrodeposited); Embrittlement Relief Test Only for: Par. 4.5.5
AMS-QQ-P-416	Plating, Cadmium (Electrodeposited) Only for: Adhesion Par. 4.6.2 Hydrogen Embrittlement Relief Test Par. 4.6.4.1
ASTM A309 Method C	Test Method for Weight and Composition of Coating on Long Terne Sheet by the Triple Spot Test Only for: Method C

ASTM A428	Test Method for Weight of Coating on Aluminum Coated Iron or Steel Articles
ASTM A90/A90M	Test Method for Weight of Coating on Zinc Coated (Galvanized) Iron or Steel Articles
ASTM B117	Test Method of Salt Spray (Fog) Testing
ASTM B136	Measurement of Stain Resistance of Anodic Coatings on Aluminum
ASTM B137	Test Method for Measurement of Coating Mass Per Unit Area on Anodically Coated Aluminum
ASTM B244	Method for Measurement of Thickness of Anodic Coatings on Aluminum and of other Non-conductive Coatings on Non-magnetic Base Metals with Eddy-Current Instruments
ASTM B368	Method for Copper-Accelerated Acetic Acid-Salt Spray (Fog) Testing (CASS Test)
ASTM B380	Standard Method of Corrosion Testing of Decorative Electrodeposited Coatings by the CorrodKote Procedure
ASTM B456	Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium (Dubpernell Test) Only for: Appendix X4
ASTM B487	Test Method for Measurement of Metal and Oxide Coating Thickness by Microscopical Examination of a Cross Section
ASTM B499	Test Method for Measurement of Coating Thickness by the Magnetic Method; Non-magnetic Coatings on Magnetic Base Metals
ASTM B571	Practice for Qualitative Adhesion Testing of Metallic Coatings
ASTM B578	Microhardness of Electroplated Coatings
ASTM B680	Seal Quality of Anodic Coatings on Aluminum by Acid Dissolution
ASTM B700	Electrodeposited Coatings of Silver for Engineering Use Only for: Embrittlement Relief Test, Para. 8.4
ASTM B767	Guide for Determining Mass Per Unit Area of Electrodeposited and Related Coatings by Gravimetric and Other Chemical Analysis Procedures
ASTM C633	Adhesion or Cohesion Strength of Thermal Spray Coatings
ASTM D1186	Test Methods for Non-destructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to a Ferrous Base
ASTM D1400	Test Method for Non-destructive Measurement of Dry Film Thickness of Non-conductive Coatings Applied to a Non-ferrous Metal Base
ASTM D1654	Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments
ASTM D1735	Practice for Testing Water Resistance of Coatings Using Water Fog Apparatus
ASTM D2247	Practice for Testing Water Resistance of Coatings in 100% Relative Humidity
ASTM D2794	

	Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)
ASTM D3170	Test Method for Chip Resistance of Coatings
ASTM D3359	Test Methods for Measuring Adhesion by Tape Test
ASTM D3363	Test Method for Film Hardness by Pencil Test
ASTM D4060	Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser
ASTM D4585	Practice for Testing Water Resistance of Coatings Using Controlled Condensation
ASTM D522	Mandrel Bend Test of Attached Organic Coatings - Cylindrical Mandrel Test Only for: Method B
ASTM D610	Method for Evaluating Degree of Rusting on Painted Steel Surfaces
ASTM D7091	Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to Ferrous Metals and Nonmagnetic, Nonconductive Coatings Applied to Non-Ferrous Metals
ASTM D714	Test Method for Evaluating Degree of Blistering of Paints
ASTM D822	Practice for Conducting Tests on Paint and Related Coatings and Materials using Filtered Open-Flame Carbon Arc Light and Water Exposure Apparatus
ASTM D870	Testing Water Resistance of Coatings Using Water Immersion
ASTM D968 Method A	Abrasion Resistance of Organic Coatings By Falling Abrasive, Method A - Falling Sand
ASTM E376	Measuring Coating Thickness by Magnetic Field or Eddy Current (Electromagnetic) Test Methods
ASTM F519	Standard Test Method of Mechanical Hydrogen Embrittlement Testing of Plating Processes and Aircraft Maintenance Chemicals
ASTM G152	Practice for Operating Open Flame Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials
ASTM G154	Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials
ASTM G155	Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials
ASTM G26	Practice for Operating Light Exposure Apparatus (Xenon-Arc Type) with and without Water for Exposure of Non-metallic Materials
ASTM G53	Practice for Operating Light and Water Exposure Apparatus (Fluorescent, UV-Condensation Type) for Exposure of Non-metallic Materials
FED-STD-141	Abrasion Resistance (Taber Abraser) Only for: Method 6192
FLTM AQ 101-01	Determination of Phosphate Coating Weights - Chromic Acid Method
FLTM BI 106-1	Paint Adhesion Test

FLTM BI 108-1	Impact Test for Painted Panels
FLTM BN 108-02	Resistance to Abrasion-Taber Abraser
FLTM BO 101-1	Resistance to Artificial Weathering
FLTM BQ 007-02	Acid Dissolution Test Decorative Aluminum Parts
FLTM BQ 104-02	Humidity Resistance Testing
FLTM BQ 105-1	Copper-Accelerated Acetic Acid Salt Spray Testing (CASS Test)
FMVSS 209	Seat Belt Assemblies Only for: Hardware; Corrosion Resistance, Sec. S5.2(a)
GM 3661P	Determination of Hydrogen Embrittlement by Static Loading
GM 4260P	Measuring Thickness of Electrodeposits and Anodic Coatings Only for: Methods 1, 3, 5 & 8
GM 4298P	Salt Spray (Mist) Testing
GM 4350M	Paint Finishes Only for: Testing covers GM 4298P, GM 4465P, GM 9071P, GM 9102P, GM 9507P, GM 9506P, GM 9508P, GM 9509P
GM 4465P	Humidity Test
GM 4476P	CASS Test, Copper-Accelerated Acetic Acid Salt Spray Test
GM 9069P	Test for Resistance to Hydrogen Sulfide Staining
GM 9071P	Tape Adhesion Test for Paint Finishes
GM 9102P	Corrosion Creepback Test Method
GM 9125P	Procedures for Laboratory Accelerated Exposure of Automotive Materials
GM 9500P	Gasoline Puddle Test
GM 9501P	Gasoline Dip Test
GM 9502P	Knife Cross-Hatch Adhesive Test
GM 9503P	Evaluating Brittleness of Painted Plastics and Sealants by Means of a Mandrel
GM 9504P	Oven Aging Test for Painted Plastics Substrates
GM 9505P	Automotive Environmental Cycles
GM 9506P	Dime Scrape Test to Determine Paint Adhesion and Brittleness
GM 9507P	Thumbnail Hardness Test for Painted Parts
GM 9508P	Chip Resistance of Coating
GM 9509P	Solvent Rub Method for Determining Cure of Painted Metal or Plastic Substrates
GM 9511P	Scab Corrosion Creepback of Paint Systems on Metal Substrate
GM 9514P	Hot Water Immersion Testing
GM 9515P	Abrasion Resistance of Organic Coatings (Taber Abraser Method)
GM 9517P	Resistance of Synthetic Perspiration
GM 9518P	Paint Thickness of Painted Flexible Plastic Parts
GM 9542P	Wear Resistance of Hot Stamps and Related Products by the Falling Sand Method

GM 9696P	CAN Test for Staining of Paint or Plastics
GM 9733P	Determination of Coating Weight on Phosphated Panels
GM 9736P	Sulfur Dioxide Spot Test
GM 9770P	Weatherstrip Coating Cure Test Only for: Method A, B, C
GM 9891P	Co-efficient of Friction
GM 9900P	Cleaning/Solvent Resistance of Automotive Components
GME 60206	Determination of Resistance to Corrosion of Automotive Components by Salt Spray Fog Testing
GMI 60264	Determination of Resistance to Sulfide Staining of Automotive Trim Components
GMW 14124	Automotive Environmental Cycles Except for: Cycle T
GMW 14864	Procedure for Determining the Staining of Trim Components Due to Sulfur Dioxide, SO <sub>2</sub> , and Hydrogen Sulfide, H <sub>2</sub> S
GMW 15288	Scab Corrosion Creepback of Paint Systems on Metal Substrates
GMW 3286	Procedure for Neutral Salt Spray Test
ISO 10289	Methods for corrosion testing of metallic and other inorganic coatings on metallic substrates - Rating of test specimens and manufactured articles subjected to corrosion tests.
ISO 1463	Metallic and Oxide Coatings - Measurement of Coating Thickness Microscopic Method
ISO 2106	Anodizing of Aluminum and its Alloys-Determination of Mass per Unit Area (Surface Density) of Anodic Oxide Coatings-Gravimetric Method
ISO 2808	Paints and Varnishes - Determination of Film Thickness Only for: Methods 5A, 6, 7
ISO 3210	Anodizing of Aluminum and its Alloys-Assessment of Quality of Sealed Anodic Oxide Coatings by Measurement of the Loss of Mass after Immersion in Phosphoric-Chromic Acid Solution
ISO 9227	Corrosion Tests in Artificial Atmospheres-Salt Spray Tests
MIL-C-13924	Coating, Oxide, Black, for Ferrous Metals: Embrittlement Relief Test Only for: Par. 4.4.4
NES M0140	Salt Spray Testing
SAE J1767	Instrumental Colour Difference Measurements for Colorfastness of Automotive Interior Trim Materials
SAE J1885	Accelerated Exposure of Automotive Interior Trim Components Using a Controlled Irradiance Water Cooled Xenon Arc Apparatus
SAE J1960	Accelerated Exposure of Automotive Exterior Materials Using a Controlled Irradiance Water Cooled Xenon Arc Apparatus
SAE J207	Electroplating of Nickel and Chromium on Metal Parts Automotive Ornamentation and Hardware Only for: Appendix B

SAE J2334	Cosmetic Corrosion Lab Test
SAE J2412	Accelerated Exposure of Automotive Interior Trim Components Using a Controlled Irradiance Xenon-Arc Apparatus
SAE J2527	Performance Based Standards for Accelerated Exposure of Automotive Exterior Materials Using a Controlled Irradiance Xenon-Arc Apparatus
SAE J400	Test for Chip Resistance of Surface Coatings

## **Colour and Appearance**

see also

Fabrics

Applied Coatings Performance

ASTM D2244	Test Method for Calculation of Colour Differences from Instrumentally Measured Colour Co-ordinates
ASTM D523	Test Method for Specular Gloss
ASTM E1164	Standard Practice for Obtaining Spectrophotometric Data for Object-Color Evaluation
ASTM E1347	Colour and Colour-Difference Measurement by Tristimulus (Filter) Colorimetry
CLP-463PB-31-01	Resistance of Paint Films to Various Fluids
FLTM BI 110-1	Measurement of the Gloss of Paint Panels
FLTM BI 113-03	Resistance to Synthetic Perspiration Staining
FLTM BI 113-07	Resistance to Synthetic Perspiration Staining
GM 9741P	Instrumented Colour Measurement
SAE J1545	Instrumental Colour Difference Measurement for Exterior Finishes, Textiles and Coloured Trim

## **Paints and Protective Coatings**

ASTM D2369	Test Methods for Volatile Content of Coatings
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## **Plastics; Resins and Rubbers:**

**Plastics**

see also

Fabrics

Resins and Rubbers

Colour and Appearance

## Construction Materials

## Applied Coatings Performance

ASTM D1003	Standard Test Method for Haze and Luminous Transmittance of Transparent Plastics Only for: Appendix X2
ASTM D1004	Test Methods for Initial Tear Resistance of Plastic Film and Sheeting
ASTM D1238	Test Method for Flow Rates of Thermoplastics by Extrusion Plastometer Only for: Method A
ASTM D1499	Practice for Operating Light and Water Exposure Apparatus (Carbon Arc Type) for Exposure of Plastics
ASTM D1525	Test Method for Vicat Softening Temperature of Plastics
ASTM D1693	Environmental Stress Cracking
ASTM D1790	Test Method for Brittleness Temperature of Plastic Film by Impact
ASTM D1822	Test Method for Tensile-Impact Energy to Break Plastic and Electrical Insulating Materials
ASTM D1894	Test Method for Static and Kinetic Coefficients of Friction of Plastic Film and Sheeting
ASTM D2457	Test Method for Specular Gloss of Plastic Film and Solid Plastics
ASTM D256	Determining the Pendulum Impact Resistance of Notched Specimens of Plastic Only for: Methods A and E
ASTM D2565	Practice for Operating Xenon-Arc Type Light Exposure Apparatus, with and without water for Exposure of Plastics
ASTM D2584	Test Method for Ignition Loss of Cured Reinforced Resins
ASTM D3950	Standard Specification for Strapping, Non-metallic (and Joining Methods)
ASTM D4226	Test Methods for Impact Resistance of Rigid Polyvinylchloride (PVC) Building Products
ASTM D4329	Practice for Fluorescent UV Exposure of Plastics
ASTM D4459	Practice for Operating an Accelerated Light fastness Xenon-Arc Type (water cooled) Light-Exposure Apparatus for the Exposure of Plastics for Indoor Applications
ASTM D4812	Un-notched Cantilever Beam Impact Resistance of Plastics
ASTM D5420	Test Method for Impact Resistance of Flat Rigid Plastic Specimen by Means of a Striker Impacted by a Falling Weight (Gardner Impact)
ASTM D570	Test Method for Water Absorption of Plastics
ASTM D6110	Test method for determining the Charpy Impact Resistance of Notched Specimens of Plastics
ASTM D618	Standard Practice for Conditioning Plastics for Testing



ASTM D635	Rate of Burning and/or Extent and Time of Burning of Self-Supporting Plastics in a Horizontal Position
ASTM D638	Test Method for Tensile Properties of Plastics
ASTM D648	Test Method for Deflection Temperature of Plastics Under Flexural Load
ASTM D695	Test Method for Compressive Properties of Rigid Plastics
ASTM D696	Test Method for Coefficient of Linear Thermal Expansion of Plastics
ASTM D732	Shear Strength of Plastics by Punch Tool
ASTM D746	Test Method for Brittleness Temperature of Plastics and Elastomers by Impact
ASTM D785	Test Method for Rockwell Hardness of Plastics and Electrical Insulating Materials
ASTM D790	Test Methods for Flexural Properties of Un-reinforced and Reinforced Plastics and Electrical Insulating Materials
ASTM D792	Test Method for Specific Gravity (Relative Density) and Density of Plastics by Displacement
ASTM D882	Test Methods for Tensile Properties of Thin Plastic Sheeting
ASTM F2231	Charpy Impact Test on Thin Specimens of Polyethylene Used in Pressurized Pipes
CLP-463LB-12-01	Resistance to Humidity Hot and Cold Cycling of Trim Materials
FLTM BN 24-2	Flammability Test for Automotive Interior Materials
FLTM BO 115-01	Plastics - Resistance to Artificial Weathering
FMVSS 302	Flammability of Interior Polymeric Materials, Horizontal Test Method
GM 9032P	Test for Determining Impact Strength of Plastics
GM 9033P	Colourfastness to Crocking (Rubbing)
GM 9070P	Procedure for Testing Flammability of Materials
GM 9077P	Test for Glass Content of Glass Reinforced Plastics
GM 9126P	Test for Cleanability of Textiles and Plastics
GM 9128P	Mildew Growth
GM 9131P	Colour Change Due to Temperature and Humidity
GM 9133P	Resistance to Water Spotting, Finish Disturbance, Salt Staining, and Discolouration
GM 9141P	Compatibility of Vinyl Materials and Leather
GM 9143P	Crazing of Vinyl Trim Materials
GM 9150P	Resistance to Marring or Scuffing
GM 9160P	Top Coat Adhesion of Vinyls
GM 9200P	Accelerated Aging
GM 9300P	Impact Test for Plastic Materials
GM 9302P	Test for Stress Mark Susceptibility of Plastic Materials
GM 9305P	Determination of Fogging Characteristics of Automotive Interior Trim Materials
GM 9306P	Ash Content of Plastic Materials
GM 9452P	Test for Dimensional Stability
GM 9773P	Cold Slam Test

GME 60276	Test Method for Determining the Resistance to Odour Propagation of Trim Materials
GMI 60266	Determination of Resistance to Cleaning Agents of Automotive Trim Components
GMI 60267	Determination of Impact Resistance of Plastic Components Falling Ball Testing Device Only for: Apparatus A
GMW 14093	Determination of Impact Resistance of Plastic Components Except for: Method B
GMW 14334	Chemical Resistance to Fluids
GMW 3205	Test Method for Determining the Resistance to Odour Propagation of Interior Materials
GMW 3232	Test Method for Determining the Flammability of Interior Trim Materials
GMW 3235	Fogging Characteristics of Trim Materials
ISO 1133	Plastics-Determination of the Melt Mass-Flow Rate (MFR) and the Melt Volume-Flow Rate (MVR) of Thermoplastics
ISO 1183-1	Plastics-Methods for Determining the Density of Non-Cellular Plastics Only for: Method A
ISO 178	Plastics-Determination of Flexural Properties
ISO 179	Plastics-Determination of Charpy Impact Strength
ISO 180	Plastics-Determination of Izod Impact Strength
ISO 291	Plastics-Standard Atmospheres for Conditioning and Testing
ISO 306	Plastics-Thermoplastic Materials-Determination of Vicat Softening Temperature (VST)
ISO 3451-1	Plastics - Determination of Ash
ISO 3795	Road Vehicles and Tractors and Machinery for Agriculture and Forestry-Determination of Burning Behavior of Interior Materials
ISO 527	Plastics-Determination of Tensile Properties Only for: Part 1 &2
ISO 604	Plastics Determination of Compressive Properties
ISO 62	Plastics-Determination of Water Absorption
ISO 75	Plastics-Determination of Temperature of Deflection Under Load Only for: Part 1 &2
ISO 974	Plastics-Determination of the Brittleness Temperature by Impact
SAE J1756	Test Procedure to Determine the Fogging Characteristics of Interior Automotive Materials
SAE J369	Flammability of Polymeric Interior Materials-Horizontal Test Method
TSM 0500G	Flammability Test Method for Interior Non-Metallic Materials

## Resins and Rubbers

see also

## Applied Coatings Performance

### Plastics

ASTM D1056	Specification for Flexible Cellular Materials
ASTM D1229	Test Method for Rubber Property - Compression Set at Low Temperature
ASTM D1414	Test Methods for Rubber O-Rings
ASTM D2137	Test Methods for Rubber Property-Brittleness Point of Flexible Polymers
ASTM D2240	Test Method for Rubber Property - Durometer Hardness
ASTM D3574	Test Methods for Flexible Cellular Materials - Slab, Bonded, and Molded Urethane Foams Only for: Tests A, B1, B2, C, D, E, F, K
ASTM D395	Test Methods for Rubber Property - Compression Set
ASTM D412	Test Methods for Vulcanized Rubber and Thermoplastic Rubbers Thermoplastic Elastomers Tension
ASTM D413	Test Methods for Rubber Property-Adhesion to Flexible Substrate (Machine Method)
ASTM D429	Test Methods for Rubber Property-Adhesion to Rigid Substrates Only for: Method A
ASTM D573	Test Method for Rubber Deterioration in an Air Oven
ASTM D575	Rubber Properties in Compression
ASTM D624	Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomer
ASTM D750	Test Method for Rubber Deterioration in Carbon Arc or Weathering Apparatus
ASTM D925	Rubber Property - Contact Staining of Surfaces Only for: Method A
ISO 188	Rubber Vulcanized-Accelerated Aging or Heat Resistance Tests Only for: Section 3
ISO 815	Rubber, Vulcanized or Thermoplastic-Determination of Compression Set at Ambient, Elevated or Low Temperatures

## **METALLIC ORES AND PRODUCTS**

### **Articles of Metal:**

#### **All Forms, Articles of Metal**

AASHTO T244	Standard Method of Test for Mechanical Testing of Steel Products Only for: Section 18 and Supplement 3
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AASHTO T80	Standard Specification for Rockwell Hardness and Rockwell Superficial Hardness of Metallic Materials
AMS 2315	Determination of Delta Ferrite Content
AMS 2485	Coating, Black Oxide Only for: Surface and Intergranular Attack, Para. 3.3.4
AMS 2643	Structural Examination of Titanium Alloys Chemical Etch Inspection Procedure
ASTM A247	Test Method for Evaluating the Microstructure of Graphite in Iron Castings
ASTM A255	End Quench Hardenability (Jominy Test)
ASTM A262	Practices for Detecting Susceptibility to Intergranular Attack in Austenitic Stainless Steels
ASTM A370	Test Methods and Definitions for Mechanical Testing of Steel Products
ASTM A380	Practice for Cleaning, Descaling and Passivation of Stainless Steel Parts, Equipment and Systems
ASTM A561	Macroetch Testing of Tool Steel Bars
ASTM A604	Macroetch Testing of Consumable Electrode Remelted Steel Bars and Billets
ASTM A799	Standard Practice for Steel Castings, Stainless, and Instrument Calibration for Estimating Ferrite Content
ASTM A800	Steel Casting, Austenitic Alloy, Estimating Ferrite Content Thereof, Determinations from Magnetic Response
ASTM A923	Detecting Detrimental Intermetallic Phase in Duplex Austenitic/Ferritic Stainless Steels
ASTM B557	Method of Tension Testing Wrought and Cast Aluminum and Magnesium Alloy Products
ASTM E10	Test Method for Brinell Hardness of Metallic Materials
ASTM E1019	Test Method for Determination of Carbon, Sulphur, Nitrogen and Oxygen in Steel and in Iron, Nickel and Cobalt Alloys
ASTM E1077	Test Methods for Estimating the Depth of Carburization of Steel Specimens
ASTM E1097 CMTL Modified	Guide for Direct Current Plasma Emission Spectrometry Analysis (Modified for ICP Argon Optical Emission Spectrometry)
ASTM E111	Test Method for Young's Modulus, Tangent Modulus and Chord Modulus
ASTM E112	Test Methods for Determining the Average Grain Size
ASTM E1180	Standard Practice for Preparing Sulfur Prints for Macrostructural Examination
ASTM E1181	Test Methods for Characterizing Duplex Grain Sizes
ASTM E1245	Standard Practice for Determining the Inclusion or Second Phase Constituent Content of Metals by Automatic Image Analysis
ASTM E1268	Standard Practice for Assessing the Degree of Banding or Orientation of Microstructures Analysis
ASTM E1382	Test Methods for Determining Average Grain Size Using Semiautomatic and Automatic Image Analysis

ASTM E139	Practice for Conducting Stress Rupture Tests of Metallic Materials
ASTM E140	Standard Hardness Conversion Tables for Metals Relationship Among Brinell Hardness, Vickers Hardness, Rockwell Hardness, Superficial Hardness, Knoop Hardness and Scleroscope Hardness
ASTM E1409	Determination of Oxygen and Nitrogen in Titanium and Titanium Alloys by the Inert Gas Fusion Technique
ASTM E1447	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 Hydrogen in Titanium and Titanium Alloys by the Inert Gas Fusion Thermal Conductivity/Infrared Detection Method
ASTM E1479	Practice for Describing and Specifying Inductively-Coupled Plasma Optical Emission Spectrometers
ASTM E18	Test Methods for Rockwell Hardness and Rockwell Superficial Hardness of Metallic Materials
ASTM E209	Practice for Compression Tests of Metallic Materials at Elevated Temperatures with Conventional or Rapid Heating Rates and Strain Rates
ASTM E21	Elevated Temperature Tension Tests of Metallic Materials
ASTM E23	Test Methods for Notched Bar Impact Testing of Metallic Materials
ASTM E290	Test Method for Semi-Guided Bend Test for Ductility of Metallic Materials
ASTM E292	Practice for Conducting Time-for-Rupture Notch Tension Tests of Materials
ASTM E3	Standard Practice for Preparation of Metallographic Specimens
ASTM E340	Method for Macroetching Metals and Alloys
ASTM E345	Test Methods of Tension Testing of Metallic Foil
ASTM E381	Method of Macroetch Testing, Inspection and Rating Steel Products, Comprising Bars, Billets, Blooms and Forgings
ASTM E384	Test Method for Microhardness of Materials Only for: 50g to 1000g load
ASTM E407	Methods for Microetching Metals and Alloys
ASTM E45	Practice for Determining the Inclusion Content of Steel
ASTM E517	Test Method for Plastic Strain Ratio $r$ for Sheet Metal
ASTM E562	Practice for Determining Volume Fraction by Systematic Manual Point Count
ASTM E646	Test Method for Tensile Strain Hardening Exponents (n-Values) of Metallic Sheet Materials
ASTM E768	Standard Practice for Preparing and Evaluating Specimens for Automatic Inclusion Assessment of Steel
ASTM E8	Test Methods for Tension Testing of Metallic Materials
ASTM E883	Standard Guide for Reflected-Light Photomicrography
ASTM E9	

	Test Methods of Compression Testing of Metallic Materials at Room Temperature
ASTM E92	Test Method for Vickers Hardness of Metallic Materials Only for: 1kg to 10kg load
ASTM E930	Test Methods for Estimating the Largest Grain Observed in a Metallographic Section (ALA Grain Size)
ASTM G28	Test Methods of Detecting Susceptibility to Intergranular Corrosion in Wrought, Nickel Rich, Chromium-Bearing Alloys
ASTM G31	Practice for Laboratory Immersion Corrosion Testing of Metals
ASTM G34	Exfoliation Corrosion Susceptibility in 2XXX and 7XXX Series Aluminum Alloys (EXCO Test)
ASTM G46	Examination and Evaluation of Pitting Corrosion
ASTM G48	Pitting and Crevice Corrosion Resistance of Stainless Steels and Related Alloys by Use of Ferric Chloride Solution
Chrysler PS-9500	Process Standard for Hydrogen Embrittlement Relief
FED TM STD No. 151	Metals: Test Methods
GMW 3335	Metallic Sheet, Mechanical Properties Testing
ISO 10113	Metallic Materials - Sheet and Strip - Determination of Plastic Strain Ratio
ISO 10275	Metallic Materials - Sheet and Strip - Determination of Tensile Strain Hardening Exponent
ISO 148-1	Charpy Pendulum Impact Test - Test Method
ISO 3274	Geometrical Product Specifications (GPS) - Surface Texture: Profile Method - Nominal Characteristics of Contact (Stylus) Instruments
ISO 4287	Geometrical Product Specifications (GPS) - Surface Texture: Profile Method - Terms, Definitions and Surface Texture Parameters
ISO 643	Steels-Micrographic Determination of the Ferritic or Austenitic Grain Size
ISO 6507 Part 1	Metallic Materials - Vickers Hardness Test
ISO 6508 Part 1	Metallic Materials - Rockwell Hardness Test
ISO 6892	Metallic Materials-Tensile Testing at Ambient Temperature
SAE J121	Decarburization in Hardened and Tempered Unified Threaded Fasteners
SAE J121M	Decarburization in Hardened and Tempered Metric Threaded Fasteners
SAE J406	Methods of Determining Hardenability of Steels
SAE J417	Hardness Tests & Hardness Number Conversion (Vickers, Brinell, & Rockwell Tests)
SAE J419	Methods of Measuring Decarburization
SAE J422	Microscopic Determination of Inclusions in Steel
SAE J423	Methods of Measuring Case Depth
SAE J911	Surface Texture Measurement of Cold Rolled Sheet Steel

## Welded

ANSI/AWS B4.0	Standard Methods for Mechanical Testing of Welds
ASME Boiler & Pressure Vessel Code Section II, Part C	Material Specifications-Welding Rods, Electrodes and Filler Metals
ASME Boiler & Pressure Vessel Code Section IX	Welding and Brazing Qualifications
ASTM E190	Test Method for Guided Bend Test for Ductility of Welds
CAN/CSA W48-01	Filler Metals and Allied Materials for Metal Arc Welding
Chrysler PS-9471	Resistance Spot Welding Automotive Components
Chrysler PS-9472	Arc Welding Automotive Components
CSA-Z662	Oil and Gas Pipeline Systems
GM 4460P	Weldments - Test Methods Only for: Deep Etch Guided Bends Shear Test for Fillet Welds Nick Break Test Fillet Weld - Size and Contour Evaluation
GM 4491M	Arc Spot, Plug and Slot Welding Specification
GM 6122M	Automotive Arc Welding Specification
GMW 14058	Weld Acceptance Criteria and Repair Procedures for Arc Welds and Arc Brazes - Steel
ISO 5817	Welding Fusion-Welded Joints in Steel, Nickel, Titanium and Their Alloys (Beam Welding Excluded) Quality Levels for Imperfections

**Semi-Fabricated Products: (Extrusion, rolled sections)**

CAN/CSA-G40.20	General Requirements for Rolled or Welded Structural Quality Steel
CAN/CSA-G40.21	Structural Quality Steels

**Tools, Fasteners and Hardware:**

see also

All Forms, Articles of Metal

ASTM A489	Specification for Carbon Steel Lifting Eyes
ASTM A574	Specification for Alloy Steel Socket-Head Cap Screws
ASTM F541	Specification for Alloy Steel Eyebolts
ASTM F606	Method for Conducting Tests to Determine the Mechanical Properties of Externally and Internally Threaded Fasteners, Washers, and Rivets
ASTM F606M	Test Method for Determining Mechanical Properties of Externally and Internally Threaded Fasteners, Washers and Rivets
ASTM F788/F788M	Specification for Surface Discontinuities of Bolts, Screws, and Studs, Inch and Metric Series

ASTM F812/F812M	Specification for Surface Discontinuities of Nuts, Inch and Metric Series
ASTM F835	Specification for Alloy Steel Socket Button and Flat Countersunk Head Cap Screws
GM 255M; GM 260M, GM 275M, GM 280M, GM 290 M, GM 300M, GM455M	Mechanical and Quality Requirements for Externally Threaded Fasteners
GM 284M, GM 286M, GM 301M, GM 305M, GM 456M GM 500M	Metallurgical Requirements for Steel Nuts Mechanical and Material Requirements for Metric Externally Threaded Fasteners
GM 510M	Mechanical and Metallurgical Requirements for Metric Series Steel Nuts
ISO 898 Part 1	Mechanical Properties of Fasteners
NAM 1312-108	Fastener Test Methods, Metric: Method 108 - Tensile Strength
NASM 1312	Fastener Test methods Only for: Methods 1, 3, 5, 6, 8, 9, 10, 12, 18
SAE J1061	Surface Discontinuities on General Application Bolts, Screws, and Studs
SAE J1199	Mechanical and Material Requirements for Metric Externally Threaded Steel Fasteners
SAE J122	Surface Discontinuities on Nuts
SAE J123	Surface Discontinuities on Bolts, Screws, and Studs in Fatigue Applications
SAE J238	Nut and Conical Spring Washer Assemblies
SAE J429	Mechanical and Material Requirements for Externally Threaded Fasteners
SAE J430	Mechanical and Chemical Requirements for Non-Threaded Fasteners
SAE J773	Conical Spring Washers
SAE J995	Mechanical and Material Requirements for Steel Nuts

### **(Fasteners and Fastener Materials**

**see also:**

**Applied Coatings Performance  
All Forms, Articles of Metal  
Tools, Fasteners, and Hardware)**

## **TEXTILES AND FIBROUS MATERIALS**

### **Other**

**(Leather**



see also: **Plastics**)

CLP 463KC-21-01	Perspiration Resistance
GM 9240P	Perspiration Resistance

**Textile Mill Products: (Including synthetic and natural fibres)**

**Fabrics**

See also:

Applied Coatings Performance Colour and Appearance

Plastics

AATCC EP1	Grey Scale for Colour Change
AATCC EP2	Grey Scale for Staining
AATCC EP8	9 Step Chromatic Transference Scale
AATCC TM8	Colourfastness to Crocking: AATCC Crockmeter Method
ASTM D1117	Standard Methods of Testing Non-woven Fabrics Only for: Trapezoid Tear Strength
ASTM D3884	Standard Test Method for Abrasion Resistance of Textile Fabrics (Rotary Platform, Double Head Method)
ASTM D5034	Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)
ASTM D5035	Standard Test Method for Breaking Force and Elongation of Textile Fabrics (Strip Method)
ASTM D5587	Tearing Strength of Fabrics by Trapezoid Procedure
ASTM D5733	Test Procedure for Tearing Strength of Nonwoven Fabrics by the Trapezoid Procedure
CLP-463KB-12-01	Weatherometer Test of Automotive Type Trim Materials
CLP-463KB-2-01	Breaking Strength and Elongation Testing of Soft Trim Materials
CLP-463KB-21-01	Wear Resistance of Trim Materials - Taber Method
CLP-463KC-13-01	Flammability of Automotive Interior Trim Materials - Fabrics
FLTM AN 101-1	Resistance of Textiles to Bleeding, Perspiration and Water Spotting
FLTM BN 107-01	Crocking Test
FLTM BN 18-1	Wicking Test - Textile Materials Only for: Method 1c
GM 9130P	Test for Resistance to Odour of Textiles
ISO 105 Part A02	Textiles-Test for Colour Fastness (Grey Scale for Assessing Change in Colour)
SAE J1351	Hot Odour Test for Insulation Materials

SAE J861	Method of Testing Resistance to Crocking of Organic Trim Materials
SAE J913	Test Method for Wicking of Automotive Fabrics and Fibrous Materials Only for: Method C

**WOOD PRODUCTS**  
***(AND PLASTIC LUMBER)***

**Construction Materials: (Including for Furniture)**

ASTM D1037	Base Fiber and Particle Panel Materials (Hardness Test; Water Absorption and Thickness Swelling Test) Only for: Section 68-73 &100-107
ASTM D143	Standard Methods of Testing Small Clear Specimens of Timber - Hardness Only for: Section 13
ASTM D2394	Standard Methods for Simulated Service Testing of Wood and Wood-Base Finish Flooring (Coefficient of Friction) Only for: Section 33-37
ASTM D6109	Test Methods for Flexural Properties of Unreinforced and Reinforced Plastic Lumber
ASTM D6111	Test Method for Bulk Density and Specific Gravity of Plastic Lumber and Shapes by Displacement
ASTM D6341	Test Method for 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 D6662	Polyolefin-Based Plastic Lumber Decking Boards
ASTM D7032	Establishing Performance Ratings for Wood-Plastic Composite Deck Boards and Guardrail Systems (Guards or Handrails) Except for: Biodetermination Tests and Fire Performance Tests
ASTM E935	Standard Test Methods for Performance of Permanent Metal Railing Systems and Rails for Buildings
ICC-ES AC174	ICC Evaluation Services, Inc. - Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems (Guards and Handrails) Except for: Sec. 3.9 - Termite and Decay and Sec. 3.10 Flame Spread

**Fasteners and Hardware: (See Construction)**

ASTM D1761	Standard Test Methods for Mechanical Fasteners in Wood (Withdrawal Test; Lateral Resistance Test) Only for: Section 1-11 &12-18
ASTM D6117	Standard Test Methods for Mechanical Fasteners in Plastic

ASTM E894  
Lumber and Shapes (Withdrawal Test; Lateral Resistance Test)  
Only for: Method A & B  
Standard Test Method for Anchorage of Permanent Metal Railing Systems and Rails for Buildings

**Notes:**

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

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S. Cross, Director, Conformity Assessment

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Partner File #0

Partner: None