SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ELEMENT MATERIALS TECHNOLOGY MONTRÉAL
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MECHANICAL

Valid To: September 30, 2026 Certificate Number: 214.49

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory at the location listed above, ***as well as the two satellite locations listed below***, to perform the following tests on Aerospace, Railway, Automotive, Photonic, Consumer, Medical and Material products:

Test:	**Test Method(s)[1, 2]:**	
Vibration	MIL-STD-883	Method 2005 TC: A, B Method 2007 TC: A Method 2026 TC: A to F
	MIL-STD-810	Method 514
	MIL-STD-202	Method 201 Method 204 TC: A, B, C, D, F, G Method 214 TC: A to F
	IEC 60068-2-6	
	IEC 60068-2-64	
	IEC 60255-21-1	
	IEC 61373 (1999, 2010)	
	RTCA/DO-160	
	JEDEC	JESD22-B103
	GMW 3172	Section 9.3.1 Section 9.3.2 Section 10.2

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Test:	Test Method(s)[1, 2]:	
Vibration ***(continued)***	GMW 15310	Section 3.2.1.2.3
	GMW 16288	Section 3.2.1.2.3
	Chrysler CS-11982	Section 4.2.3
	Chrysler CS-00056	Section 5.4.3
	Chrysler PF-12184	Section 3.1
	Chrysler PF-90135	Section 9.6
	Chrysler PF.90189	Section 5.2
	ISO 16750-3	Section 4.1
	SAE J1455	
	ANSI C136.31	
	Telcordia GR-1221	
	CSA C22.2 No.137	Vibration only
	CSA C22.2 60601-1-11	
	CSA C22.2 60601-1-12	
	UL 844	Vibration only
	NEMA TS 2	Section 2.2.8
	ASTM D4169	Limited capability: maximum displacement 2 inches
Mechanical Shock	MIL-STD-883	Method 2002 TC: A, B
	MIL-STD-810	Section 516
	MIL-STD-202	Section 213 TC: A to K
	IEC 60068-2-27	
	IEC 60255-21-2	
	IEC 61373 (1999, 2010)	
	RTCA/DO-160	

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Test:	Test Method(s)[1, 2]:	
Mechanical Shock *(cont.)*	JEDEC	JESD22-B104 A to H
	GMW 3172	Section 9.3.3 Section 9.3.4 Section 9.3.5
	Chrysler CS-11982	Section 4.2.4 Section 4.2.5
	Chrysler CS-00056	Section 5.4.4 Section 5.4.5
	ISO 16750-3	Section 4.2
	SAE J1455	
	Telcordia GR-1221	
	CSA C22.2 60601-1-11	
	CSA C22.2 60601-1-12	
	NEMA TS 2	Section 2.2.9
	ASTM D4169	
HALT	GMW3172	Section 8.3.1
	GMW8287	
Temperature Steady State	MIL-STD-810	Method 501 Method 502
	IEC 60068-2-1	
	IEC 60068-2-2	
	RTCA/DO-160	
	JEDEC	JESD22-A101 JESD22-A103 JESD22-A119
	GMW 3172	Section 9.4.1
	GMW14325	Section 4.1.2
	GMW 15310	Section 3.2.1.2.4

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Test:	Test Method(s)[1, 2]:	
Temperature Steady State *(cont.)*	GMW 15725	Section 4.4 Section 4.5
	GMW 16288	Section 3.2.1.1.3 Section 3.2.1.1.4
	GMW16910	Section 3.5
	Chrysler CS-11982	Section 4.1.1 Section 4.1.2
	Chrysler CS-00056	Section 5.3.1 Section 5.3.2
	Chrysler PF-12184	Section 3.4 Section 3.5
	Chrysler PF.90189	Section 5.1 Section 5.4 Section 5.5 Section 5.6
	ISO 16750-4	Section 5.1
	SAE J1455	
	Telcordia GR-1221	Section 6.2.4 Section 6.2.6
	CSA C22.2 60601-1-11	
	CSA C22.2 60601-1-12	
	NEMA TS 2	Section 2.2.7 Test C, D, E, F, G
	ASTM D4169	
Temperature Variation	MIL-STD-883	Method 1010
	MIL-STD-810	Method 503
	MIL-STD-202	Method 107
	IEC 60068-2-14	Tests Na, Nb
	RTCA/DO-160	

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Test:	Test Method(s)[1, 2]:	
Temperature Variation *(cont.)*	JEDEC	JESD22-A104 JESD22-A105
	GMW 3172	Section 9.4.2 Section 9.4.3
	GM 6139M	Section 3.9
	Chrysler PF-12032	Section 7.5
	Chrysler PF-12184	Section 3.3
	Chrysler PF-90135	Section 9.5
	ISO 16750-4	Section 5.3
	SAE J1455	
	Telcordia GR-1221	Section 6.2.3 Section 6.2.7
	CSA C22.2 60601-1-11	
	CSA C22.2 60601-1-12	
Humidity	MIL-STD-810	Method 507
	MIL-STD-202	Method 103
	IEC 60068-2-3	
	IEC 60068-2-30	
	IEC 60068-2-38	
	IEC 60068-2-56	
	IEC 60068-2-78	
	IEC 61496-1	
	SAE J1455	
	RTCA/DO-160	
	Telcordia GR-1221	Section 6.2.5 Section 6.2.8

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Test:	Test Method(s)[1, 2]:	
Humidity *(cont.)*	GMW 3172	Section 9.4.5 Section 9.4.6
	GMW 15725	Section 4.3
	GM 6139M	Section 3.1
	GMW14124	
	GMW14729	
	GMW16910	Section 3.6 Section 3.7
	Chrysler CS-11982	Section 4.1.6 Section 4.1.7
	Chrysler CS-00056	Section 5.3.6 Section 5.3.7
	Chrysler PF-12184	Section 3.6
	Chrylser PF.90189	Section 5.7
	ISO 16750-4	Section 5.6 Section 5.7
	ASTM D2247	
	ASTM D4169	
	CSA C22.2 60601-1-11	
	CSA C22.2 60601-1-12	
Salt Fog / Salt Spray / Immersion	MIL-STD-883	Method 1009
	MIL-STD-810	Method 509
	MIL-STD-202	Method 101
	IEC 60068-2-11	
	IEC 60068-2-52	
	RTCA/DO-160	
	GMW 3172	Section 9.4.7

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Test:	Test Method(s)[1, 2]:	
Salt Fog / Salt Spray / Immersion ***(cont.)***	GMW3286	
	GMW16910	Section 3.8
	ISO 16750-4	Section 5.5
	ISO 9227 (NSS)	Section 5.2
	SAE J1455	
	ASTM B117	
	Chrysler PF.90189	Section 5.13
Degrees of Protection Provided by Enclosures	IEC 60529	IPX1 to IPX8 IP1X to IP6X
	IEC 60958-1	IP5X & IP6X IPX6 & IPX7
	ISO 20653	IPX1 to IPX8 IP1X to IP6X IPx4K
	DIN 40 050	IPX1 to IPX8 IP1X to IP6X IPx4K
	Chrysler PF.90189	Section 5.8
Drop / Free Fall	IEC 60068-2-31	
	GMW 15310	Section 3.2.1.2.5
	GMW 16288	Section 3.2.1.1.7
	Chrysler CS-11982	Section 4.2.6
	Chrysler PF-11710	Section 4.2
	ISO 16750-3	Section 4.3
	ASTM D4169	
Impact	IEC 60068-2-75	Test Ehb (Spring Hammer) Test Ehc (Vertical)
	GMW14325	Section 4.1.4

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Test:	Test Method(s)[1, 2]:	
Impact *(cont.)*	GMW 15725	Section 4.6
	Chrysler PF-11710	Section 4.3
Vacuum / Altitude / Overpressure / Rapid Decompression	RTCA/DO-160	
	GMW 16288	Section 3.2.1.1.8
	Chrysler PF-12032	Section 5.2
	SAE J1455	
	CSA C22.2 60601-1-11	
	CSA C22.2 60601-1-12	
	MIL-STD-810	Method 500
	ASTM D4169	
Joint Air Leakage	Chrysler PF 90230	Section 7.6
Wear Resistance	GM 6139M	Section 3.12
	GMW16910 (Taber)	Section 3.10
	GMW3208 (Taber)	
Over Flow Tube Pull Off	Chrysler PF-12032	Section 5.6
	Chrysler PF-90135	Section 7.5
Cap Removal and Install Torque	GMW 15310	Section 3.2.1.2.1.2
	Chrysler PF-90135	Section 6.1.2
Washer System Strength, Flow & Pressure	Chrysler PF.90189	Section 6.3.1 Section 6.3.2 Section 6.3.3 Section 6.3.4
Cap Effort and Hinge	Chrysler PF.90189	Section 6.3.7 Section 6.3.8
Pump Retention	Chrysler PF.90189	Section 6.3.9
Siphoning Test	Chrysler PF.90189	Section 7.5.2

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Test:	Test Method(s)[1, 2]:	
Contaminated Fluid	Chrysler PF.90189	Section 7.7
Fluid Level Sensor	Chrysler PF.90189	Section 7.8
Endurance	Chrysler PF.90189	Section 9.3.1
Installation Efforts (Duct)	Chrysler PF-90230	Section 7.8
Retention Efforts (Duct)	Chrysler PF-90230	Section 7.9
Condensate Handling (Duct)	Chrysler PF-90230	Section 7.12
Duct Loading/Crush	Chrysler PF-90230	Section 7.13
Dimensional Stability	GMW14325	Section 4.1.9 (Caliper measurement)
	Chrysler PF.90189	Section 6.2.1 (Caliper measurement)
Foam Adhesion	GMW14444 GMW14892 ISO 8510-2	Section 4.5.4
Pressure Wash	GMW16922	
Tape Adhesion	GM 6139M	Section 3.10
	GMW16910	Section 3.9
	GMW14829	
	ASTM D3359	
	ISO 2409	
Coating Evaluation	ISO 4628-2	
	ISO 4628-8	
	ISO 4628-10	
Performance verification	GMW 3172	Section 6.1 Section 6.2 Section 6.3 Section 6.4
Insulation Test	EN 50155 IEC 60571	Section 13.4.7 Section 12.2.10

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Test:	**Test Method(s)** [2]**:**	
Fluid Compatibility / Resistance	RTCA/DO-160	Hydraulic Fluids / Lubricating Oils De-Icing Fluid / Fire Extinguishants, Fuels, Insecticides
	GMW 15725	Section 4.7
	GMW16910	Section 3.9
	GMW16955	
	GM 6139M[2]	Section 5.1
	Chrysler PF-11710	Section 3.2
	Chrysler PF.90230	Section 5.4
	Chrysler PF.90223	Section 5.3.1
	Chrysler PF.90189	Section 5.9
	Chrysler PF.11203	
	Chrysler LP-463PB-31-01	
	ISO 2812-1	
Air & Fluid Pressure / Creep	RTCA/DO-160	
	GMW 15310	Section 3.2.1.2.2
	GMW 16288	Section 3.2.1.1.2 Section 3.2.1.1.6 Section 3.2.1.2.1 Section 3.2.1.2.2
	Chrysler PF-12032	Section 5.3 Section 5.4 Section 7.3 Section 7.4

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Air & Fluid Pressure / Creep ***(cont.)***	Chrysler PF-12184	Section 4.3.1 Section 4.3.2 Section 4.3.3
	Chrysler PF-90135	Section 7.1 Section 7.3 Section 9.3 Section 9.4 (limited capability: no measurement made)

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Test:	**Test Method(s)** [2]**:**	
Constant Acceleration	MIL-STD-810 RTCA/DO-160	Method 513

[1] Note: This Laboratory's Scope contains withdrawn, inactive or superseded methods. As a clarifier, this indicates the that applicable method itself has been withdrawn or is now considered "historical" and not that the laboratory's accreditation for the method has been withdrawn.

[2] When the date, edition, version, etc. is not identified in the scope of accreditation, laboratories may use the version that immediately precedes the current version for a period of one year from the date of publication of the standard test method, per Annex A, Part C of A2LA's *R101 - General Requirements: Accreditation of Conformity Assessment Bodies.*

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Accredited Laboratory

A2LA has accredited

ELEMENT MATERIALS TECHNOLOGY MONTRÉAL

Chambly, 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 6th day of November 2024.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 214.49
Valid to September 30, 2026

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

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