



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ELEMENT MATERIALS TECHNOLOGY – MELBOURNE
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MECHANICAL

Valid To: February 28, 2025

Certificate Number: 7039.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory for the following tests on the following types of products: Aircraft components, automotive components, gaskets, seals and packings, packaging and containers, pipes, hoses, valves and fittings, rubber and rubber products, tools, windows & doors, wiring harnesses, subassemblies.

For the following types of industries: Aircraft, Aerospace, Automotive, Medical, Defense and Electronics industries.

Test Description:

Tests Method(s) ¹:

Vibration^{2,3}

Up to 9,000 lbf
(3 to 4000) Hz
Acceleration: Up to 100 g
Displacement: Up to 4 in

RTCA/DO-160, Section 8;
MIL-STD-202 Method 106;
MIL-STD-810, Methods 514, 516, Procedures IV, VI, and 519;
MIL-STD-167;
IEC 60945, Section 8.7

Shock^{2,3}

Up to 210 g; 1/2 Sine
(< 1 to 35) ms at Terminal Peak

RTCA/DO-160 Section 7;
MIL-STD-202 Methods 202, 205, and 213
(higher levels need drop tower);
MIL-STD-810, Methods 514, 516, Procedures I, II, III, and V;
IEC 68-2-27; MIL-S-901D

SRS^{2,3}

Up to 250 g
(5 to 2500) Hz

MIL-STD-810, Method 516

Loose Cargo^{2,3}

Circular Synchronous Bed 300 RPM,
1 inch Orbital Path at 5 Hz

MIL-STD-810, Method 514

Test Description:

Tests Method(s) ¹:

Acceleration^{2,3}

MIL-STD-202, Method 212
(*Test Conditions A and C only*);
MIL-STD-810, Method 513;
MIL-E-5272, Rev. C, 22 Jan 71, Para 4.16

Salt Spray^{2,3}

ASTM B117; ASTM D1735; ASTM D2247;
DIN50021-SS; IEC 60945 Section 8.12;
MIL-STD-202, Method 101;
MIL-STD-810, Method 509;
RTCA/DO-160, Section 14

Sand^{2,3}

MIL-STD-810, Method 510;
MIL-STD-202 Method 110A;
RTCA/DO-160, Section 12

Dust^{2,3}

IEC 60529, Section 13;
MIL-STD-810, Method 510;
MIL-STD-202 Method 110A;
RTCA/DO-160, Section 12

Settling Dust²

IEC 60529, Section 13

Humidity (Temp/Humidity)^{2,3}

Bellcore GR-63 (5.1.1.3);
MIL-STD-202 Methods 103, 105.1, and 106;
MIL-STD-810, Method 507;
RTCA/DO-160, Section 6;
DIN 50017;
IEC 60945, Section 8.3

Moisture Resistance²

MIL-STD-202, Method 106

High/Low Temperature^{2,3}

MIL-STD-810, Methods 501, 502, 520;
MIL-STD-202, Method 108A;
IEC 60945, Sections 8.2, 8.4;
RTCA/DO160, Sections 4.5.1, 4.5.2, 4.5.3, 4.5.4,
4.55, 5, 24 (Category A & C)

Thermal Shock^{2,3}

RTCA/DO160, Section 6;
IEC 60945, Section 8.5;
MIL-STD-202 Method 107G;
MIL-STD-810, Method 503

Altitude^{2,3}
Up to 70,000 ft

MIL-STD-810, Method 500;
RTCA/DO160 Sections 4.6.1, 4.6.3

Leakage (Immersion)^{2,3}

MIL-STD-810, Method 512;
IEC 60945, Section 8.9

Fluid Susceptibility^{2,3}

MIL-STD-810, Method 504;
RTCA/DO-160, Section 11

Test Description:**Test Method(s) ¹:**HALT/HASS²*Random Vibration (5 to 5000) Hz
Level (0 to 85) g(pk)
Temperature: (-100 to 200) °C*Halt Standard;
General Halt Requirements, Customer SuppliedRapid Decompression^{2,3}

MIL-STD-810, Method 500; RTCA/DO160

Over Pressure^{2,3}

RTCA/DO160

Rain^{2,3}MIL-STD-810 Method 506 Proc III;
IEC 60945, Section 8.8Solar Radiation^{2,3}

MIL-STD-810, Method 505

Impact²

UL 746C, Section 57

Icing/Freezing Rain^{2,3}MIL-STD-810, Method 521;
RTCA/DO160, Section 24Pressure²*Up to 3,000 psi*

Valve Research QTP50007-1

Water²

IEC 60529, Section 14

Waterproofness^{2,3}

RTCA/DO160, Section 10.3.1, 10.3.3 & 10.3.4

Freeze/Thaw^{2,3}

MIL-STD-810, Method 524

Water Jet Cleaning²*50 psi*

DRS 9608-96800-0001, Customer Supplied (PSI 50)

Steam Jet²*105 psi*DRS 9608-96800-0001, Customer Supplied
(105 PSI)Flammability^{2,3}

RTCA/DO160, Section 26, CAT C; FAR 25-853

Drop Test²

IEC 60945/Ed4, Section 8.6.1

Blowing Rain^{2,3}

MIL-STD-810, Method 506, Procedure I

¹ 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 measurement method, per part C., Section 1 of A2LA R101 - General Requirements- Accreditation of ISO-IEC 17025 Laboratories.

² Using customer-specified test methods utilizing any combinations of test equipment parameters listed above.

³ Note: This lab is capable of performing current and older versions of MIL-STD-810 (versions B through H) and RTCA/DO-160 (versions B through G) for the methods listed above. The methods listed above on this scope are accredited.



Accredited Laboratory

A2LA has accredited

ELEMENT MATERIALS TECHNOLOGY - MELBOURNE

Melbourne, FL

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 7th day of February 2023.

A blue ink signature of Mr. Trace McInturff, written in a cursive style.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 7039.02
Valid to February 28, 2025

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