



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ELEMENT MATERIALS TECHNOLOGY TEMPE

1155 West 23<sup>rd</sup> Street, Suite 11-A

Tempe, AZ 85282

Connor Smith Phone: 480 966 5517

Email: [connor.smith1@element.com](mailto:connor.smith1@element.com)

MECHANICAL

Valid To: March 31, 2028

Certificate Number: 0214.10

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following automotive, and aerospace testing:

| <b><u>Tests:</u></b>                                                                                              | <b><u>Test Specifications/Methods <sup>1</sup>:</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Vibration (Sine, Random and Combined) <sup>2</sup><br>(5 to 3000) Hz<br>1" stroke<br>24,000 lbs. Force to 100 g's | MIL-STD-750 C, D, E, F (Methods 2046, 2056, 2057);<br>MIL-STD-167A (Method I);<br>MIL-STD-810 Base, A, B, C, D, E, F, G, H<br>(Methods 514, 519, 526);<br>MIL-STD-202 E, F, G (Methods 201, 203, 204, 214);<br>MIL-STD-1344A (through Notice 6), (Method 2005);<br>MIL-STD-1576 Base (Method 3113);<br>MIL-STD-1540 B, C, D;<br>RTCA/DO-160 B, C, D, E, F, G (Section 8);<br>SAE/USCAR 24 (Inflator Requirements), June 2004;<br>SAE/USCAR 28 (Initiator Requirements), June 2005 |
| Vibration Shock <sup>2</sup><br>(5 to 3000) Hz<br>1" stroke<br>24,000 lbs. Force to 100 g's                       | MIL-STD-202 E, F, G (Method 213);<br>MIL-STD-810 Base, A, B, C, D, E, F, G, H,<br>(Method 516);<br>MIL-STD-1344A (through Notice 6), (Method 2004);<br>RTCA/DO-160 B, C, D, E, F, G (Section 7);<br>SAE/USCAR 24 (Inflator Requirements), June 2004;<br>SAE/USCAR 28 (Initiator Requirements), June 2005                                                                                                                                                                          |
| Mechanical (Drop) Shock <sup>2</sup><br>(12, 20 & 40) ft. drop towers                                             | MIL-STD-810 Base, A, B, C, D, E, F, G, H,<br>(Method 516);<br>MIL-STD-202 E, F, G (Method 213);<br>MIL-STD-1344A (through Notice 6) (Method 2004);<br>MIL-STD-1576 Base (Method 3114);<br>SAE/USCAR 24 (Inflator Requirements), June 2004                                                                                                                                                                                                                                         |
| (Beam) Shock <sup>2</sup><br>Air Cannon, Beam                                                                     | MIL-STD-1576 Base (Method 3114)                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| <b><u>Tests:</u></b>                                                                    | <b><u>Test Specifications/Methods</u><sup>1</sup>:</b>                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acceleration <sup>2</sup><br>r = 12"; RPM=2000<br>r = 34"; RPM=400<br>r = 56"; RPM=150  | MIL-STD-810 Base, A, B, C, D, E, F, G, H,<br>(Method 513);<br>MIL-STD-202 E, F, G (Method 212);<br>MIL-STD-1344A (through Notice 6), (Method 2011);<br>RTCA/DO-160 B, C, D, E, F, G (Section 7);<br>SAE/USCAR 28 (Initiator Requirements), June 2005                                                    |
| <b>Environmental</b>                                                                    |                                                                                                                                                                                                                                                                                                         |
| Temperature Altitude <sup>2</sup><br>(0 to 100,000) Feet<br>(-72 to 150) °C             | MIL-STD-810 Base, A, B, C, D, E, F, G, H<br>(Method 500);<br>MIL-STD-202 E, F, G (Method 105);<br>RTCA/DO-160 B, C, D, E, F, G (Section 4);<br>SAE/USCAR 28 (Initiator Requirements), June 2005                                                                                                         |
| High Temperature <sup>2</sup><br>200 °C chamber                                         | MIL-STD-810 Base, A, B, C, D, E, F, G, H<br>(Method 501);<br>MIL-STD-202 E, F, G (Method 108);<br>SAE/USCAR 24 (Inflator Requirements), June 2004;<br>SAE/USCAR 28 (Initiator Requirements), June 2005                                                                                                  |
| Low Temperature <sup>2</sup><br>(To -176 °C)                                            | MIL-STD-810 Base, A, B, C, D, E, F, G, H (Method<br>502)                                                                                                                                                                                                                                                |
| Temperature Shock <sup>2</sup><br>(-176 to 200) °C                                      | MIL-STD-810 Base, A, B, C, D, E, F, G, H (Method<br>503);<br>MIL-STD-202 E, F, G (Method 107);<br>SAE/USCAR 24 (Inflator Requirements), June 2004;<br>SAE/USCAR 28 (Initiator Requirements), June 2005                                                                                                  |
| Thermal Vacuum <sup>2</sup><br>1x 10 <sup>-5</sup> torr (or better)<br>(-150 to 175) °C | SCGPS56054                                                                                                                                                                                                                                                                                              |
| Temperature/Humidity <sup>2</sup><br>(10 to 95) %RH                                     | RTCA/DO-160 B, C, D, E, F, G (Section 6);<br>MIL-STD-810 Base, A, B, C, D, E, F, G, H<br>(Method 507);<br>MIL-STD-202 E, F, G (Method 103);<br>MIL-STD-1344A (through Notice 6), (Method 1002);<br>SAE/USCAR 24 (Inflator Requirements), June 2004;<br>SAE/USCAR 28 (Initiator Requirements), June 2005 |
| Temperature Cycling <sup>2</sup><br>(-176 to 200) °C                                    | MIL-STD-810 Base, A, B, C, D, E, F, G, H<br>(Method 520);<br>MIL-STD-1344A (through Notice 6), (Method 1003);<br>RTCA/DO-160 B, C, D, E, F, G (Section 5)                                                                                                                                               |
| Explosive Atmosphere                                                                    | MIL-STD-810 Base, A, B, C, D, E, F, G, H,<br>(Method 511);<br>RTCA/DO-160 B, C, D, E, F, G (Section 9)                                                                                                                                                                                                  |

| <b><u>Tests:</u></b>                                    | <b><u>Test Specifications/Methods</u> <sup>1</sup>:</b>                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rapid Decompression                                     | MIL-STD-810 Base, A, B, C, D, E, F, G, H, (Method 500);<br>RTCA/DO-160 B, C, D, E, F, G (Section 4)                                                                                                                                                                                                                                                                       |
| Immersion                                               | MIL-STD-810 Base, A, B, C, D, E, F, G, H (Method 512);<br>MIL-STD-202 E, F, G (Method 104);<br>MIL-STD-1344A (through Notice 6), (Method 1016)                                                                                                                                                                                                                            |
| Fluid Susceptibility                                    | MIL-STD-810 F, G, H, Method 504);<br>RTCA/DO-160 B, C, D, E, F, G (Section 11)                                                                                                                                                                                                                                                                                            |
| Solar Radiation/Sunshine                                | MIL-STD-810 Base, A, B, C, D, E, F, G, H, (Method 505)                                                                                                                                                                                                                                                                                                                    |
| Salt Fog/Spray                                          | MIL-STD-810 Base, A, B, C, D, E, F, G, H, (Method 509);<br>MIL-STD-1344A (through Notice 6), (Method 1001);<br>RTCA/DO-160 B, C, D, E, F, G (Section 14);<br>SAE/USCAR 24 (Inflator Requirements), June 2004;<br>SAE/USCAR 28 (Initiator Requirements), June 2005;<br>MIL-STD-202 E, F, G (Method 101);<br>ASTM B117-73, -94, -97, -02, -03, -07, -09, -11, -16, -18, -19 |
| Rain/Drip/Blowing Rain <sup>2</sup><br>(Up to 40mph)    | RTCA/DO-160 B, C, D, E, F, G (Section 10);<br>MIL-STD-810 Base, A, B, C, D, E, F, G, H, (Method 506)                                                                                                                                                                                                                                                                      |
| Freezing Rain                                           | RTCA/DO-160 B, C, D, E, F, G (Section 24);<br>MIL-STD-810 Base, A, B, C, D, E, F, G, H, (Method 521)                                                                                                                                                                                                                                                                      |
| Combined Environments (Temperature, Humidity, Altitude) | RTCA/DO-160 B, C, D, E, F, G, (Section 4);<br>MIL-STD-810 Base, A, B, C, D, E, F, G, H (Method 520);<br>SAE/USCAR 24 (Inflator Requirements), June 2004;<br>SAE/USCAR 28 (Initiator Requirements), June 2005                                                                                                                                                              |
| Sand and Dust                                           | MIL-STD-810 Base, A, B, C, D, E, F, G, H Method 510);<br>RTCA/DO-160 B, C, D, E, F, G (Section 12);<br>MIL-STD-202 E, F, G (Method 110);<br>SAE J1211 (Section 4.5), Nov. 78 (dust only);<br>SAE J1455 (Section 4.7), Aug. 94 (dust only)                                                                                                                                 |
| Dust Ingress                                            | IEC 60529, ISO 20653 IP5X, IP6X                                                                                                                                                                                                                                                                                                                                           |
| Water Ingress                                           | IEC 60529, ISO 20653 IPX3, IPX4, IPX5, IPX6, IPX7, IPX8                                                                                                                                                                                                                                                                                                                   |

<sup>1</sup> 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*.

<sup>2</sup> Also using customer specific test methods utilizing any combination of test equipment parameters listed above.

Uncontrolled If Printed



# Accredited Laboratory

A2LA has accredited

**ELEMENT MATERIALS TECHNOLOGY TEMPE**

*Tempe, AZ*

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 27<sup>th</sup> day of May 2026.

A blue ink signature of Mr. Trace McInturff, Vice President of Accreditation Services.

Mr. Trace McInturff, Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 0214.10  
Valid to March 31, 2028

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