



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ELEMENT MATERIALS TECHNOLOGY BURTON

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ACOUSTICS and VIBRATION

Valid To: June 30, 2026

Certificate Number: 1123.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following vibration tests using the parameters and methods listed below:<sup>3</sup>

**On the following products or types of products:**

Automotive, Aerospace, Military and Electrical/Electronic/Mechanical components and assemblies.

| Test Type                                                                                                                                                                                 | Test Parameters                                                                                                                                                                                                                                              | Test Method/Standard                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Random Vibration<sup>1</sup></b><br><br>Single Axis Vibration Testing.<br>Electro-dynamic vibration<br>tables. Controllers using client<br>methods within the following<br>parameters: | Displacement: up to 2.5in pk-to-pk<br><br>Force: Up to 15,000 force-lbs<br><br>Frequency:<br>5 Hz to 2,500 Hz<br><br>Temperature:<br>(-50 to +150) °C. Ramp rate<br>10 °C/min max.<br><br>Humidity:<br>30% to 95% RH<br><br>Maximum Acceleration:<br>100gRMS | TL-6172;<br>TL-6550;<br>ASTM D4728;<br>FCA CS.00056;<br>GMW 3172 <sup>2</sup> ;<br>GMW 3191;<br>Hyundai/KIA ES95400-10;<br>IEC 60068-2-64;<br>ISO 16750-3;<br>JDQ 53.3;<br>MIL-STD-202(G,H) methods<br>214;<br>MIL-STD-810(G,H) method<br>514;<br>Nissan 28401NDS01;<br>SAE J 1455;<br>USCAR-2 |

| Test Type                                                                                                                                                                          | Test Parameters                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Test Method/Standard                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Sine Vibration<sup>1</sup></b></p> <p>Single Axis Vibration Testing. Electro-dynamic vibration tables. Controllers using client methods within the following parameters:</p> | <p>Displacement: up to 2.5in pk-to-pk</p> <p>Force: Up to 15,000 force-lbs</p> <p>Frequency:<br/>5 Hz to 2,500 Hz</p> <p>Temperature:<br/>(-50 to +150) °C. Ramp rate<br/>10 °C/min max.</p> <p>Humidity:<br/>30% to 95% RH</p> <p>Maximum Acceleration:<br/>140gRMS</p> <p>Velocity Continuous:<br/>71 inches/second</p>                                                                                                                                                                                                  | <p>TL-6172;<br/>TL-6550;<br/>Ford CETP:00.00-E-412;<br/>FCA CS.00056;<br/>GMW 3172<sup>2</sup>;<br/>GMW 3191;<br/>Hyundai/KIA ES95400-10;<br/>IEC 60068-2-6;<br/>ISO 16750-3;<br/>JDQ 53.3;<br/>JIS D 1601;<br/>MIL-STD-202(G,H) methods<br/>201, 204;<br/>MIL-STD-810(G,H) method<br/>514;<br/>Nissan 28401NDS01;<br/>SAE J 1455;<br/>TSC 7000G;<br/>USCAR-2<br/>UNECE R100 rev3 section 9A</p> |
| <p><b>Mechanical Shock<sup>1</sup></b></p> <p>Electro-dynamic vibration tables with mechanical shock controller using client methods within the following parameters:</p>          | <p>Displacement: Up to 2.5 in pk-to-pk</p> <p>Force: Up to 40,000 lbf (half-sine)</p> <p>Acceleration: Up to 1500g (depending on product and fixture design, mass, and pulse duration)</p> <p>Temperature:<br/>(-50 to +150) °C Ramp rate<br/>10°C/m max.</p> <p>Humidity:<br/>30% to 95% RH</p> <p>Up to 100g (electrodynamic) (depending on product and fixture design, mass, and pulse duration)</p> <p>Up to 1500g (shock amplifier-pneumatic) (depending on product and fixture design, mass, and pulse duration)</p> | <p>Ford CETP:00.00-E-412;<br/>FCA CS.00056;<br/>GMW 3172<sup>2</sup>;<br/>GMW 3191;<br/>Hyundai/KIA ES95400-10;<br/>IEC 60068-2-27;<br/>ISO 16750-3;<br/>JDQ 53.3;<br/>MIL-STD-202(G,H) methods<br/>213;<br/>MIL-STD-810(G,H) methods<br/>516;<br/>Nissan 28401NDS01;<br/>SAE J 1455;<br/>TSC 7000G;<br/>USCAR-2</p>                                                                             |

| Test Type                                               | Test Parameters             | Test Method/Standard                                                                                        |
|---------------------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------|
| Vibration Test<br>Fixture <sup>1</sup> Transmissibility | Frequency: 5 Hz to 2,500 Hz | GMW 3172 <sup>2</sup>                                                                                       |
| Free Fall, Handling Drop                                |                             | GMW3172 <sup>2</sup> ;<br>USCAR-2;<br>ISO 16750-3;<br>IEC 60068-2-32, Procedure 1;<br>CS00056 section 5.4.6 |

<sup>1</sup> Also using customer specifications based on the parameters listed above.

<sup>2</sup> This laboratory's scope contains withdrawn or superseded methods. As a clarifier, this indicates that the applicable method itself has been withdrawn or is now considered "historical" and not that the laboratory's accreditation for the method has been withdrawn including but not limited to GMW 3172 (2008, 2010, 2012, 2015, 2018)

<sup>3</sup> This scope meets A2LA's P112 Flexible Scope Policy.



## Accredited Laboratory

A2LA has accredited

**ELEMENT MATERIALS TECHNOLOGY BURTON**

*Burton, MI*

for technical competence in the field of

**Acoustics and Vibration 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 25<sup>th</sup> day of July 2024.

A blue ink signature of Mr. Trace McInturff.

Mr. Trace McInturff, Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 1123.01  
Valid to June 30, 2026  
Revised May 18, 2026

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