SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ELEMENT MATERIALS TECHNOLOGY DENVER - LONGMONT
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MECHANICAL

Valid To: August 31, 2024 Certificate Number: 2582.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on aircraft components, automotive components, marine components, coatings, packaging and containers, electronics, and consumer goods:

Test:	Parameters:	Test Method(s) [1]:
Mechanical Vibration [2]: Includes: Sine Random Sine-on-Random Gunfire Random-on-Random Loose Cargo Vibration	(1 to 3,000) Hz 3” Stroke 40,000 lbs Force	ASTM D4169; BellCore GR-63-CORE 5.4.2, 5.4.3; IEC 68-2-59, Test Fe; IEC 68-2-34, Test Fd; IEC 68-2-35, Test Fda; IEC 68-2-6, Test Fc; JESD22 B103B; MIL-STD-810E, Method 514.4, 519.4; MIL-STD-810F, Method 514.5, 519.5; MIL-STD-810G, Method 514.6, 519.6; MIL STD-810H, Methods 514, 519; MIL-STD-167-1 (A SHIPS); MIL-STD-202G, Method 201A, 204D, 214A; MIL-STD-883G, Method 2005.2, 2007.3, 2026; MIL-STD-883H, Method 2005.2, 2007.3, 2026; MIL-STD-1344A, Method 2005.1; RTCA DO-160D, E, F, G, Sec. 8.0; RTCA DO-

Test:	**Parameters:**	**Test Method(s) [1]:**
Mechanical Shock [2]	Drop Shock: Force 600 G Period (2 to 80) ms Vibe Shock: 3” Stroke 30 000	

Test:	**Parameters:**	**Test Method(s) [1]:**
Temperature / Humidity [2]	(5 to 95) % RH	BellCore GR-63-CORE 5.1.1.3 and 5.1.2; IEC 68-2-30, Test Db; MIL-STD-810E, Method 507.3; MIL-STD810F, Method 507.4; MIL-STD-810G, Method 507.5; MIL STD-810H, Method 507; MIL-STD-202G, Method 103B, 106G; MIL-STD-883G, H, Method 1004.7; MIL-STD-1344A, Method 1002.2; RTCA DO-160D, E, F, G, Sec. 6.0; RTCA DO-227 6/23/1995, Sec. 2.3.6; SAE J1455, Sec. 4.2; SAE J1211, Sec. 4.2
Salt Spray Salt Fog, Corrosion		ASTM B117; GM 9540P (superdeded 2013)[3]; IEC 68-2-52, Test Kb; MIL-STD-810E, Method 509.3; MIL-STD-810F, Method 509.4; MIL-STD-810G, Method 509.5; MIL STD-810H, Method 509; MIL-STD-202G, Method 101E; MIL-STD-883G, H, Method 1009.8; MIL-STD-1344A, Method 1001.1; NEMA 250, Sec. 5.8 and 5.9; RTCA DO-160D, E, F, G, Sec. 14.0; SAE J1455, Sec. 4.3; SAE J2334; SAE J1211, Sec. 4.3
Evaluation: Corrosion Creep-back		ASTM D1654
Evaluation: Tape Adhesion		ASTM D3359
Altitude (Barometric Pressure) [2] Temperature Altitude	(5,000 to 70,000) ft (-70 to 140) ºC	MIL-STD-810E, Method 500.3; MIL-STD-810F, Method 500.4; MIL-STD-810G, Method 500.5; MIL STD-810H, Method 500; MIL-STD-202G, Method 105C; MIL-STD-202 E, F, and G Method 213; MIL-STD-883G, H, Method 1001.1; MIL-STD-1344A, Method 1011; SAE J1455, Sec. 4.9; SAE J1211, Sec. 4.6; UN ST/SG/AC 10/11 Rev. 5 Para. 38.3.4.1; RTCA DO-160 D, E, F, G, Sec. 4.0; RTCA/DO-160
	(-50 to 80) ºC	

		Cat. A & C
Test:	**Parameters:**	**Test Method**

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 18th day of July 2022.

Mr. Trace McInturff, Vice President, Accreditation Services

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Revise July 2

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