SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ELEMENT MATERIALS TECHNOLOGY BALTIMORE
5 North Park Drive
Hunt Valley, MD 21030
Mrs. Sarah D. Brammer Phone: 410 584 9099

ELECTRICAL

Valid To: December 31, 2024 Certificate Number: 0214.36

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on the following products: Aerospace, Automotive, Avionics, Consumer Products, Electronics, Industrial, Medical, Military Telecommunication and Textiles.

Test Technology:	**Test Method(s)[1]:**
Arc Resistance	ASTM D495; IPC-TM-650 (Section 2.5.1)
Dielectric Constant/Loss Tangent/ Permittivity Dissipation Factor Range: 100Hz to 100KHz 1 MHz to 1.0 GHz	ASTM D150; ASTM D2520; IPC-TM-650 (Methods 2.5.5.1, 2.5.5.2, and 2.5.5.3); MIL-STD-883, Method 5011
Resistivity/Volume and Surface Resistance	ASTM D257; IPC-TM-650 (Methods 2.5.17.1); MIL-STD-883, Method 5011; IEC 60093
Q Factor/Q Resonance	IPC-TM-650 (Method 2.5.28); MIL-I-46058
Dielectric Strength/Dielectric Breakdown/ Electrical Strength Range: AC to 50kV DC to 60kV	ASTM D149; IPC-TM-650 (Methods 2.5.6, 2.5.6.1, 2.5.6.2, and 2.5.6.3); IEC 62631
Electromigration (ECM) Insulation Resistance (IR) Moisture and Insulation Resistance (MIR) Surface Insulation Resistance (SIR) Range: $10^5\Omega$ to $10^{12}\Omega$	IPC-TM-650 (Sections 2.6.3, 2.6.3.1, 2.6.3.2, 2.6.3.3, 2.6.3.7, 2.6.14, 2.6.14.1); MIL-STD-202, Methods 106 and 302

Test Technology:	**Test Method(s)[1]:**
Dielectric Withstanding Voltage (DWV)/ AC Withstanding Voltage DC Withstanding Voltage	BELLCORE GR-78-CORE; IPC-TM-650 (Method 2.5.7)
Event Detection	IPC-9701 (Paragraph 4.3)
Range: >300Ω for >200 nanoseconds	
Shelf Life of Conormal Coating	MIL-I-46058; IPC-CC-830

Supporting the following documents: IPC-4101, IPC-SM-840, IPC-CC-830, IPC-6012, IPC-6013, IPC-6018, IPC-J-STD-004, MIL-A-28870, MIL-I-46058, MIL-P-50884, MIL-PRF-31032, MIL-PRF-55110

This laboratory also uses customer supplied specifications and/or methods directly related to the testing technologies and parameters listed above.

Facility studies performed according to IPC-QL-653 "Certification of Facilities that Inspect/Test Printed Boards, Components and Materials."

[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*.

Accredited Laboratory

A2LA has accredited

ELEMENT MATERIALS TECHNOLOGY BALTIMORE

Hunt Valley, MD

for technical competence in the field of

Electrical 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 5th day of June 2023.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 0214.36
Valid to December 31, 2024
Revised November 8, 2023

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