



## SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

### ELEMENT MATERIALS TECHNOLOGY BALTIMORE

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Hunt Valley, MD 21030  
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### MECHANICAL

Valid To: December 31, 2026

Certificate Number: 214.35

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 product types: Aerospace, Automotive, Avionics, Consumer Products, Electronics, Industrial, Medical, Military Telecommunication and Textiles.

#### Test Technology:

Plating Adhesion

Strength/Compression  
(Bond Strength, Lap Shear Strength, Shear Strength, Compression/Compression Strength, Tension/Tensile Strength, Tack, Tear Strength, Tear Resistance, Propagation Tear, Peel Strength, Scratch Resistance)

#### Range:

Up to 22,500 lbs  
(-170 to 425) °F

Bow and Twist/Warpage

Failure Analysis using Techniques Included in Method O-17 or in the Chemical, Electrical and/or Mechanical Scope

Flammability

Flexibility Endurance/Folding Flexibility

Fungus Resistance (Non-Nutrient Growth)

#### Test Method(s)<sup>1</sup>:

IPC-TM-650 (Method 2.4.1)

ASTM D638;  
IPC-TM-650  
(Methods 2.4.8, 2.4.8.1, 2.4.18, 2.4.18.1, 2.4.21);  
MIL-STD-883, Method 5011

IPC-TM-650 (Methods 2.4.22 and 2.4.22.1)

BAL O-17<sup>2</sup>

UL 94 (Sections 7 and 8)

IPC-TM-650 (Method 2.4.3);  
MIL-P-50884<sup>3</sup>

RTCA DO-160, section 13;  
ASTM G21;  
IPC-TM-650 (Methods 2.6.1 and 2.6.1.1);  
MIL-STD-810;  
MIL-I-46058<sup>2</sup> Amendment 7 (Sections 3.7 and 4.8.4)

**Test Technology:**

Hardness  
(Pencil, Shore A, Shore D, Shore O, Knoop,  
Vickers, Barcol Hardness)

Corrosion of Flux using Temperature/Humidity  
Chamber

Hydrolytic Stability/Temperature/Humidity Aging

Life at Elevated Ambient Temperature

Microscopic Evaluation/Visual Examination/  
Microsection Analysis (Cross-Section)  
(3 to 1,000x)

Outgassing

Thermal Diffusivity

Thickness – Micrometer

Goniometer/Hydrophobic Contamination/  
Contact Angle/Surface Wettability

Ultraviolet Exposure

Xenon Arc Exposure

Shock  
(Thermal Shock, Air-to-Air, Thermal Cycling,  
Temperature Cycling,  
Rapid Change of Temperature)

Range:  
(-75 to 180) °C

Solderability/Steam Aging

Rework Simulation/Thermal Stress/  
Solder Shock/Resistance to Soldering Heat

Water Absorption/Moisture Absorption

Water Vapor Transmission

X-Ray Radiography

**Test Method(s)<sup>1</sup>:**

ASTM D3363; ASTM D2240;  
ASTM E92; ASTM E384;  
ASTM D2583; IPC-TM-650 (Method 2.4.27.2)

IPC-TM-650 (Method 2.6.15)

IPC-TM-650 (Methods 2.6.11 and 2.6.11.1);  
MIL-I-46058<sup>3</sup>; IPC-SM-840; IPC-CC-830

MIL-STD-202, Method 108

IPC-TM-650 (Methods 2.1.1, 2.1.2, 2.1.5, and 2.1.10)

ASTM E595

ASTM E1461

ASTM D1005 (Methods C and D); MIL-I-46058<sup>3</sup>

ASTM C813; ASTM D7334

ASTM G154

ASTM G155

IPC-TM-650 (Methods 2.6.7, 2.6.7.1, and 2.6.7.2  
Revision B);  
MIL-STD-202, Method 107

IPC-J-STD-002; IPC-J-STD-003

IPC-TM-650 (Methods 2.4.13.1, 2.4.36, and 2.6.8);  
MIL-STD-202, Method 210

ASTM D570;  
IPC-TM-650 (Methods 2.6.2 and 2.6.2.1)

ASTM E96

BAL SOP O-3<sup>2</sup>

<b><u>Test Technology:</u></b>	<b><u>Test Method(s)</u><sup>1</sup>:</b>
Instrumental Color Difference Measurements for Exterior Finishes, Textiles, and Colored Trim	SAE J1545; ASTM D2244
Dry and Pry/Dye and Pull	IPC-TM-650 (Method 2.4.53)

Supporting the following documents: IPC-SM-840, IPC-CC-830, IPC-6012, IPC-6013, IPC-6018, MIL-A-28870, MIL-I-46058, MIL-P-50884, MIL-PRF-31032, MIL-PRF-55110, IPC-J-STD-004, IPC-J-STD-005

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

<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 R101 - *General Requirements: Accreditation of Conformity Assessment Bodies*.

<sup>2</sup> In-house Test Method.

<sup>3</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.



## Accredited Laboratory

A2LA has accredited

**ELEMENT MATERIALS TECHNOLOGY BALTIMORE**  
Hunt Valley, MD

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 26<sup>th</sup> day of February 2025.

A blue ink signature of the name "Trace McInturff".

Mr. Trace McInturff, Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 214.35  
Valid to December 31, 2026

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