



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

METCUT RESEARCH INC.
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Cincinnati, OH 45240
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MECHANICAL

Valid To: June 30, 2026

Certificate Number: 0296.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following types of testing on metallic and nonmetallic materials:

Testing Capabilities:

Load, Longitudinal Strain, and/or Stroke control (Uni-Axial)
Frequency Capacity: Indefinite hold up to 100Hz
Load Capacity: 2 lbs. (1000g) to 100,000 lbs. (445kN)
Strain Capacity: (+/- .5 to +/- 20) %
Stroke Capacity: Up to 5 inches (127mm)
Temperature Capability: -320°F (196°C) to 3000°F (1650°C)
Waveforms: Sine, ½ Sine, Square, Sawtooth, Trapezoidal, Triangle, Random & Mission Spectrums

Environmental Simulation Capabilities:

Temperature / Humidity Cycling: Room Temperature to 190°F (87°C) and (50-95) % RH
Thermal Cycling & Thermal Shock: (-60 to 600) °F, (-51 to 315) °C

<u>Test</u>	<u>Test Method</u>
<u>Mechanical Property Testing</u>	
Metallic Materials Testing	MRI Series 200
Non-Metallic Materials Testing	MRI Series 200
Thermo-Physical Property Testing	MRI Series 200
<u>Specimen Preparation</u>	
CNC Machining	MRI Series 200
Conventional Machining	MRI Series 200
Electron Discharge Machining (EDM)	MRI Series 200
Low-Stress Grinding and Polishing	GE: P1TF79
Centerless Grinding	MRI Series 200
Non-Metallic/Composite Material	MRI 200.21
Strain Gaging of Components and Specimens	ASTM E1237; MRI 500.5-20
<u>Environmental Simulation</u>	
Temperature / Humidity Cycling	LTP-703, LTP-710
Thermal Cycling & Thermal Shock	LTP-703, LTP-710

<u>Test</u>	<u>Test Method</u>
<u>Metallic Materials Testing</u>	
Fatigue	
High Cycle	ASTM E466; E50TF148
Low Cycle	ASTM E606; E50TF148
Tensile	
Elevated Temperature	ASTM E21
Room Temperature	ASTM E8/E8M
Compression	
Elevated Temperature	ASTM E209
Room Temperature	ASTM E9
<u>Non-Metallic Materials Testing</u>	
Fatigue (LCF & HCF)	
Composite Fatigue	ASTM D3479/D3479M
CMC Fatigue	GE: HSR/EPM-D-002
Compression Test	
Compressive Test	ASTM D395, D695, D6641/D6641M; EN 2850; SACMA SRM-1R
Compressive After Impact	ASTM D7136, D7137/D7137M; GE: 4013367-032; SACMA SRM-2
Compressive/Flexural Properties of Sandwich Construction	ASTM C393, D5467, D7249/D7249M
Flatwise Compressive Properties of Sandwich Cores	ASTM C365/C365M
Open Hole Compressive	ASTM D6484
Shear Test	
Shear	ASTM C273, D3518, D3846; ISO 14129; EN 2563; SACMA SRM-7
Lap Shear	ASTM D1002, D3165, D3983; ISO 14129; EN 2243-1
Shear Properties of Composite Materials by V-Notched Rail Shear Method	ASTM D5379, D7078/D7078M
Short Beam Shear	ASTM D2344/D2344M; SACMA SRM-8
Double Overlap Shear	ASTM D3528
Bearing Shear	ASTM D5961/D5961M, D7248/D7248M
Core Shear	ASTM C393/C393M; ISO 1922
Hardness Test	
Shore Hardness (A & D)	ASTM D2240
Tensile Test	
Curved Beam Strength	ASTM D6415/D6415M
Tensile	ASTM C297/C297M, C1468, D412, D638, D1708, D3039/D3039M, D7291/D7291M; EN 2561; ISO 527
Open Hole Tensile	ASTM D5766/D5766M
Tensile (Ceramic & Matrix Composite)	GE: HSR/EPM D-001

<u>Test</u>	<u>Test Method</u>
<u>Non-Metallic Materials Testing (cont'd)</u>	
Peel Test	
Peel Test	ASTM D429, D1876
Floating Roller Peel	ASTM D3167
Climbing Drum Peel	ASTM D1781; EN 2243-3
Flexural Test	
Flexural	ASTM D790, D6272; EN 2562
CMC Flexural	ASTM C1161, C1341; GE: HSR/EPM D-003
Physical Properties / Specialty Test	
Fiber Volume / Void Content	ASTM D3171
Conditioning (Composites)	ASTM D5229/D5229M; SACMA SRM-11
Conditioning (Plastics)	ASTM D618
Burn Off (Ignition Loss)	ASTM D2584
Drop Weight Test	ASTM D7136/D7136M
Izod Impact Strength	ASTM D256; ISO 180
Mode I Interlaminar Fracture Toughness	ASTM D5528; GE: 4013367-058
Mode II End Notch Flex	GE: 4013367-059; ASTM D7905
Mixed Mode	ASTM D6671/D6671M
Salt Fog/sea Salt Fog (w/SO ₂)	ASTM B117, G85 (All Annexes)
Specific Gravity/Density	ASTM D297, D792, D1622
Density of Sandwich Core Materials	ASTM C271
Thermal Oxidative Stability (TOS)	GE: E50TF534
Water Absorption	ASTM D570
Bearing Strength Test (Procedure A and B)	ASTM D953
Fastener Pull Through Strength Test	ASTM D7332
<u>Thermo-Physical Property Testing</u>	
Dynamic Mechanical Analysis (DMA)	ASTM D4065, D5418, D7028, E1640; EN 6032; SACMA SRM-18R
Differential Scanning Calorimeter (DSC)	
Glass Transition (TG) Temperature	ASTM D7426, E1356, E2602
Specific Heat	ASTM E1269, E2716
Onset Temperature and Peak Temperature for Composite System Resins	SACMA SRM 25R
Glass Transition and Enthalpies of Fusion and Crystallization	ASTM D3418
Thermomechanical Analysis (TMA)	ASTM E831, E1545
Coefficient of Linear Thermal Expansion (CLTE)	ASTM E228
Thermal Diffusivity by the Flash Method	ASTM E1461



Accredited Laboratory

A2LA has accredited

METCUT RESEARCH INC.

Cincinnati, OH

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 laboratory also meets the requirements of R223 – Specific Requirements: GE Aviation S400 Accreditation Program. 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 29th day of May 2024.



A blue ink signature of Mr. Trace McInturff.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 0296.02
Valid to June 30, 2026
Revised July 7, 2025

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