

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

CINCINNATI TESTING LABORATORIES

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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 <u>metallic and nonmetallic materials:</u>

Testing Capabilities:

Tost

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

Tost Mathad

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

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Mechanical Property Testing	
Metallic Materials Testing	MRI Series 200
Non-Metallic Materials Testing	MRI Series 200
Thermo-Physical Property Testing	MRI Series 200
Specimen Preparation	
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

(A2LA Cert. No. 0296.02) 05/29/2024

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Test Test Method

Environmental Simulation

Temperature / Humidity Cycling LTP-703, LTP-710 Thermal Cycling & Thermal Shock LTP-703, LTP-710

Metallic Materials Testing

Fatigue

High Cycle ASTM E466; E50TF148 Low Cycle ASTM E606; E50TF148

Tensile

Elevated Temperature ASTM E21 Room Temperature ASTM E8/E8M

Non-Metallic Materials Testing

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 ASTM C393, D5467, D7249/D7249M

Construction

Flatwise Compressive Properties of Sandwich ASTM C365/C365M

Cores

Open Hole Compressive

Shear Test Shear

EN 2563; SACMA SRM-7

ASTM C273, D3518, D3846; ISO 14129;

ASTM D2344/D2344M; SACMA SRM-8

ASTM D5961/D5961M, D7248/D7248M

ASTM C393/C393M; ISO 1922

ASTM D1002, D3165, D3983; ISO 14129; Lap Shear

EN 2243-1

ASTM D3528

ASTM D2240

ASTM D6484

Shear Properties of Composite Materials by ASTM D5379, D7078/D7078M

V-Notched Rail Shear Method

Short Beam Shear Double Overlap Shear

Bearing Shear Core Shear Hardness Test

Shore Hardness (A & D)

Tensile Test

Curved Beam Strength

Tensile

ASTM D6415/D6415M

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

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<u>Test Method</u>

Non-Metallic Materials Testing (cont'd)

Peel Test 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

Conditioning (Composites) ASTM D5229/D5229M; SACMA SRM-11

ASTM D3171

Conditioning (Plastics)

Burn Off (Ignition Loss)

ASTM D618

ASTM D2584

Drop Weight Test
ASTM D2384
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/SO₂) ASTM B117, G85 (All Annexes) Specific Gravity/Density ASTM D297, D792, D1622

Density of Sandwich Core Materials

Thermal Oxidative Stability (TOS)

Water Absorption

ASTM C271

GE: E50TF534

ASTM D570

Thermo-Physical Property Testing

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

ASTM COMMON COMMO

Onset Temperature and Peak Temperature for SACMA SRM 25R Composite System Resins

Glass Transition and Enthalpies of Fusion and ASTM D3418

Crystallization

Thermomechanical Analysis (TMA)

ASTM E831, E1545

ASTM E228

Coefficient of Linear Thermal Expansion (CLTE)

ASTM E228
Thermal Diffusivity by the Flash Method

ASTM E1461



Accredited Laboratory

A2LA has accredited

CINCINNATI TESTING LABORATORIES

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.

Mr. Trace McInturff, Vice President, Accreditation Services For the Accreditation Council

Certificate Number 0296.02

Valid to June 30, 2026