



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

CINCINNATI TESTING LABORATORIES

1775 Carillon Blvd.
Cincinnati, OH 45240
Jeff Viney Phone: 513 271 5100

MECHANICAL

Valid To: June 30, 2024

Certificate Number: 0296.02

In recognition of the successful completion of the A2LA evaluation process (including compliance to R223 - Specific Requirements- GE Aviation S-400 Accreditation Program), 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°F to 600°F (-51°C to 315°C)

Test

Test Method

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

Test

Test Method

Environmental Simulation

Temperature / Humidity Cycling
Thermal Cycling & Thermal Shock

LTP-703, LTP-710
LTP-703, LTP-710

Metallic Materials Testing

Fatigue
High Cycle
Low Cycle
Tensile
Elevated Temperature
Room Temperature

ASTM E466; E50TF148
ASTM E606; E50TF148
ASTM E21
ASTM E8/E8M

Non-Metallic Materials Testing

Fatigue (LCF & HCF)
Composite Fatigue
CMC Fatigue
Compression Test
Compressive Test

Compressive After Impact

Compressive/Flexural Properties of Sandwich Construction
Flatwise Compressive Properties of Sandwich Cores
Open Hole Compressive
Shear Test
Shear

Lap Shear

Shear Properties of Composite Materials by 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

Open Hole Tensile
Tensile (Ceramic & Matrix Composite)

ASTM D3479/D3479M
GE: HSR/EPM-D-002

ASTM D395, D695, D6641/D6641M;
EN 2850; SACMA SRM-1R
ASTM D7136, D7137/D7137M;
GE: 4013367-032; SACMA SRM-2
ASTM C393, D5467, D7249/D7249M

ASTM C365/C365M

ASTM D6484

ASTM C273, D3518, D3846; ISO 14129;
EN 2563; SACMA SRM-7
ASTM D1002, D3165, D3983; ISO 14129;
EN 2243-1
ASTM D5379, D7078/D7078M

ASTM D2344/D2344M; SACMA SRM-8
ASTM D3528
ASTM D5961/D5961M, D7248/D7248M
ASTM C393/C393M; ISO 1922

ASTM D2240

ASTM D6415/D6415M
ASTM C297/C297M, C1468, D412, D638,
D1708, D3039/D3039M, D7291/D7291M;
EN 2561; ISO 527
ASTM D5766/D5766M
GE: HSR/EPM D-001



Test

Test Method

Non-Metallic Materials Testing (cont'd)

Peel Test

- Peel Test
- Floating Roller Peel
- Climbing Drum Peel

- ASTM D429, D1876
- ASTM D3167
- ASTM D1781; EN 2243-3

Flexural Test

- Flexural
- CMC Flexural

- ASTM D790, D6272; EN 2562
- ASTM C1161, C1341; GE: HSR/EPM D-003

Physical Properties / Specialty Test

- Fiber Volume / Void Content
- Conditioning (Composites)
- Conditioning (Plastics)
- Burn Off (Ignition Loss)
- Drop Weight Test
- Izod Impact Strength
- Mode I Interlaminar Fracture Toughness
- Mode II End Notch Flex
- Mixed Mode
- Salt Fog/sea Salt Fog (w/SO₂)
- Specific Gravity/Density
- Density of Sandwich Core Materials
- Thermal Oxidative Stability (TOS)
- Water Absorption

- ASTM D3171
- ASTM D5229/D5229M; SACMA SRM-11
- ASTM D618
- ASTM D2584
- ASTM D7136/D7136M
- ASTM D256; ISO 180
- ASTM D5528; GE: 4013367-058
- GE: 4013367-059; ASTM D7905
- ASTM D6671/D6671M
- ASTM B117, G85 (All Annexes)
- ASTM D297, D792, D1622
- 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
- Specific Heat
- Onset Temperature and Peak Temperature for Composite System Resins
- Glass Transition and Enthalpies of Fusion and Crystallization

- ASTM D7426, E1356, E2602
- ASTM E1269, E2716
- SACMA SRM 25R

- ASTM D3418

Thermomechanical Analysis (TMA)

- Coefficient of Linear Thermal Expansion (CLTE)
- Thermal Diffusivity by the Flash Method

- ASTM E831, E1545
- ASTM E228
- 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 8th day of July 2022.



A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 0296.02
Valid to June 30, 2024

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