



YOUR TRUSTED PARTNER IN **AEROSPACE AND DEFENSE**
TESTING AND ANALYTICAL SERVICES



EAG
Laboratories



Materials and Engineering Science for the Aerospace & Defense Industry

From airplanes and satellites to defense tools and high-tech communication, the aerospace and defense industries are highly regulated and complex.

As industries continue to evolve to include new technologies to lower fuel emissions, improve communications and develop lighter materials, the need for high quality and reliable testing and analytical services has increased. Eurofins EAG Laboratories offers a comprehensive suite of materials testing services to support the development of new high-performance materials, test the reliability of electronic systems and investigate structural and metallurgical failures.

Eurofins EAG Laboratories (EAG) is one of two commercial testing services, in the world, that currently has DLA suitability to provide MIL-STD 883/750 Test Method 1018 Internal Water Vapor Content Testing for hermetically sealed electronic devices. Suitability for Test Method 1018 is the Gold Standard for testing reliability and accuracy, and it comes from the highest standards board in the United States.

As a certified (ISO 9001:2015, ISO 17025, DLA, ITAR Compliant, MIL Standards Compliant) and trusted partner, EAG also offers a very robust process of chain-of-custody, IP security, an in-house comprehensive LIMS database, as well as a business continuity plan. Working with EAG will bring breadth and depth of testing methodologies and experience, worldwide testing capabilities, consulting experience, and the highest level of customer confidentiality.

Materials and Engineering Science for the Aerospace & Defense Industry

Failure Analysis

EAG can perform failure analysis on both integrated circuits and devices. Services range from Level 1 non-destructive examination to Level 3 fault isolation and root cause identification and characterization.

Materials Characterization

Our scientists can provide deep insights into advanced materials, including metals and alloys, ceramics, coatings, plastics and polymers, composites, and porous materials.

Purity Certification

We can determine trace elemental impurities in ingots, manufactured parts, and the raw metal powders that go into nickel base superalloys, titanium alloys, cobalt alloys and other custom or specialized alloys.

Residual Gas Analysis (RGA)

EAG provides internal gas and water vapor analysis in microelectronic components. We support MIL-STD-883, Method 1018 and MIL-STD-750, Method 10180 and can detect masses up to 140 AMU.

Testing of Ceramic Matrix Composites (CMCs)

EAG provides full structural characterization of CMC materials including chemical composition, impurities, microstructure, and interface chemistry of reinforcement fibers such as SiC, SiCN and carbon fibers.

Long-term QC/QA Monitoring

We offer monitoring of trace and ultra-trace level concentrations in raw materials using our techniques.

Metallurgical Analysis

EAG performs failure analysis investigations of fractures to determine the mechanism and characteristics of the fracture, such as: fatigue, slow crack growth mechanisms, brittle and ductile overload, stress, corrosion, oxidation and hydrogen embrittlement.

Coating Analysis

We offer depth profiling and full chemical survey characterizations of many engineering coatings with a wide range of applications including optical, anti-reflective, environmental barrier, energy conversion, and corrosion resistance.

Destructive Physical Analysis (DPA)

EAG is DLA (Defense Logistics Agency) certified for various MIL-STD testing requirements on materials used in aerospace, commercial, military and government applications.

IC and Electronic System Testing

We offer system-level testing for reliability and failure analysis of component and modules, including selection of tester platform, hardware, and fixture design, as well as ATE test programs in both development and production.

EMC & Environmental Materials Testing

Our sister company, Eurofins E&E, can evaluate components for use in extreme electromagnetic & environmental conditions.

Sensitizer Defense Materials Testing

We can determine if any materials or equipment exposed directly to the skin contain any chemicals that are skin sensitizers with the potential to cause toxic or allergenic reactions.



Your Expert Partner for Mission Critical Testing Within the Space Exploration Industry

We have entered a new era where space exploration by private companies and commercial space flight is becoming a reality. With increased investment in launch and orbiting vehicles, there is an increased need for industry leading analytical testing to ensure reliability and the safety of the next generation of space exploration. Additionally, the next generation of lighter and stronger aerospace materials presents challenges of controlling purity and reliability. Using advanced analytical tools and proven methodologies, EAG can support all aerospace materials testing from R&D to failure analysis.

EAG has provided aerospace materials testing services for over 50 years, and specializes in meeting the demanding standards necessary for successful missions. EAG has helped space industry manufacturers with construction analysis, testing for heat sensitivity, space communication, reliability of thin vfilms, space suit material analysis and more.

As a certified research partner, EAG will help create your next successful mission.



Analysis of corrosion resistive coatings

Component testing for sensors

Alloy identification

High reliability electronics components testing

Thin film coatings for analysis on glass

Purity certification and raw metal powders for alloys

Isotopic analysis to ensure survival in space

Fatigue and other slow crack growth mechanisms

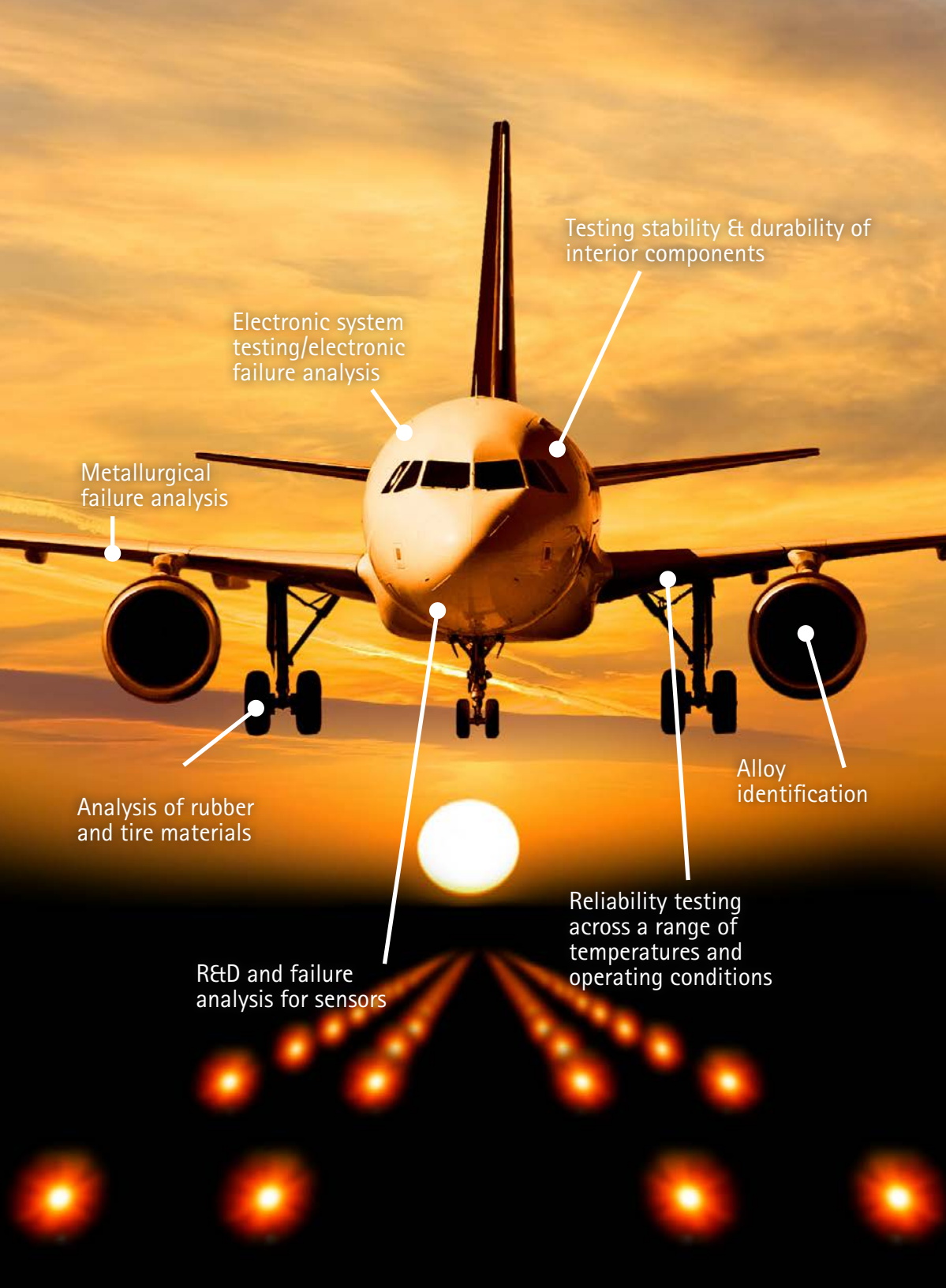
Stability and durability testing

A Trusted Partner in Product Development and Reliability for the Commercial Aircraft Industry

As the airline industry continuously seeks to improve fuel efficiency, flight safety, and overall passenger experience, the switch to lighter and stronger materials requires advanced analytical tools and proven methodologies.

EAG has helped aircraft manufacturers, and their suppliers, solve complex failures of components such as aircraft fuselage, landing gears, bearings, hydraulic hoses and fuel lines, turbine engines (compressor & hot section components) and much more. Our highly skilled team of scientists and engineers are equipped to meet industry regulations and provide reliable analysis of the components for your products.

EAG offers both testing and testimony. As product liability and failure analysis experts, EAG's technical consultants bring years of experience investigating failures, providing scientific and engineering expertise, interpreting data and giving expert testimony for hundreds of product liability and insurance claims. We help protect your company's brand and reputation when you're faced with a crisis of product liability.



Testing stability & durability of interior components

Electronic system testing/electronic failure analysis

Metallurgical failure analysis

Alloy identification

Analysis of rubber and tire materials

R&D and failure analysis for sensors

Reliability testing across a range of temperatures and operating conditions

Your One-Stop-Shop to Bring New Innovation to the Defense Industry

For over 50 years, EAG has performed defense materials testing to characterize high-performance materials and electronics used in combat and defense. EAG offers more specialized imaging and analytical expertise than any commercial contract laboratory in the world. We understand that stringent requirements for military electronics and materials can differ from commercial applications, ranging from operating temperatures to the full life cycle of components.

An ITAR and EAR compliant company registered with the DDTC, EAG is your partner to navigate the highly regulated and complex defense industry. From military aircrafts to satellites, defense tools and high-tech communication, this industry requires its equipment and components to be 100% reliable and sustain substantial wear-and-tear in all imaginable conditions.

EAG is a highly technical and skilled laboratory which offers a breadth of services to meet the needs of our partners. From a comprehensive quality analysis on electrical components to failure analysis on chip devices, we work in a highly secure lab to provide in-depth data to support your military project.



Stability and durability testing

Electronics failure analysis

Thin film coatings and analysis on glass

Coatings in optics and body armor

Weather proofing of weapons

Corrosion and metal failure

Layer thickness and composition of LEDs

Extractables & leachables testing for materials

Applications & Services

EAG offers a comprehensive suite of materials testing services for the aerospace and defense industry, meeting the industry's exacting standards for tight controls of material properties, composition and chemistry.

Advanced Microscopy	Bulk Material Analysis	Chemical Analysis	Failure Analysis	Materials Characterization	Microelectronics Testing	Reliability Qualification	Surface Analysis
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ENGINEERING							
Alloy identification		•	•		•		
Analysis of corrosion resistive coatings						•	•
Fatigue and other slow crack growth mechanisms				•	•		•
Corrosion and metal failure	•		•	•	•	•	
Isotopic analysis to ensure survival in space						•	•
Thin film coatings and analysis on glass	•				•	•	•
Metallurgical failure analysis	•			•			
Testing stability and durability of interior components		•			•		
Reliability testing across a range of temperature conditions			•			•	
Analysis of rubber and tire materials	•				•		
TECHNOLOGY							
Electronic system testing/electronic failure analysis					•		
High reliability electronics components testing					•		
Component testing for sensors					•		
R&D and failure analysis for sensors				•	•	•	
EQUIPMENT							
Layer thickness and composition of LEDs					•	•	
Weather proofing of weapons					•		•
Coatings in optics and body armor	•				•	•	•





About Eurofins EAG Laboratories

When it comes to understanding the physical structure, performance, chemical properties and composition of materials, no other scientific services company offers the breadth of experience, diversity of analytical techniques or technical ingenuity of Eurofins EAG Laboratories. We don't just perform testing, we drive commercial success—through thoughtfully designed investigations, technically superior analyses, and expert interpretation of data.

We deliver multi-disciplinary, problem-solving expertise to help our customers accelerate innovation, ensure quality and safety, and protect intellectual property. Whether you are seeking to reduce time-to-market, solve manufacturing problems or ensure regulatory compliance, turn to Eurofins EAG. We know how to bring the power of science to every phase of your product lifecycle.

- 20+ facilities located in the US, Europe, and Asia
- 2,500+ instruments
- 600+ highly-educated employees
- Serving more than 4,000 clients worldwide
- Revenue sourced from more than 50 countries

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Complete Lifecycle of Services



PRODUCT INNOVATION
& IMPROVEMENT



INVESTIGATION &
TROUBLESHOOTING



QUALITY
ASSURANCE



MANUFACTURING
SUPPORT



FAILURE
ANALYSIS



REGULATORY
COMPLIANCE



MANUFACTURING &
SUPPLY CHAIN SUPPORT



CONSULTING &
LITIGATION



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