



AUTOMOTIVE TESTING AND ANALYTICAL SERVICES



EAG
Laboratories

Materials and Engineering Science for the Automotive Industry

An automotive vehicle is the most complex consumer product that most people will ever buy. It is designed to have a lifetime of multiple years, endure substantial wear and tear in all weather and temperatures, and is expected to be 100% reliable. The sheer amount of R&D expertise in materials, engineering and manufacturing know-how that goes into producing such a product is often underestimated.

As the industry evolves, the need for automotive materials analysis and reliability testing has increased. Eurofins EAG Laboratories offers an expansive platform of analytical methods to help companies increase their R&D efficiency, speed up product development and decrease their time to market.

From the fuel and powertrain to the windshield and seats, Eurofins EAG can test it all.

Failure Analysis

Eurofins EAG can help with electrical fault localization and physical root cause analysis at the component and system level.

Reliability Qualification

We provide device/package/module qualification and ESD/Latch-up testing to rigorous AEC and other automotive standards.

Bulk Material Analysis

Eurofins EAG can help determine trace and ultra-trace level chemical impurities in raw materials.

Surface Analysis

We can help investigate the issues associated with surface coverage, molecular orientation, functionalization, contamination and surface segregation.

Advanced Microscopy

Eurofins EAG can investigate sample microstructure, morphology, particle size, particle coatings and defects.

Chemical Analysis

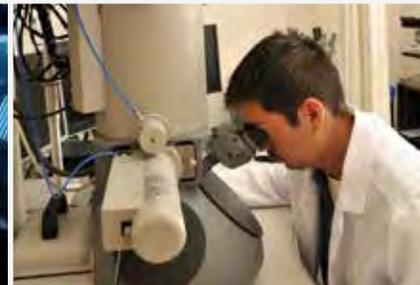
We can separate, identify and quantify chemical components of a material.

Materials Characterization

Eurofins EAG can take a deeper look into your material and discover specific properties such as depth distribution of an element, crystal structure, thickness, stress and quality.

Microelectronics Testing

Eurofins EAG supports test development and characterization during pre-production and production ramp-up.



Automotive Testing and Analytical Services

Powertrain and Drivetrain

- supply chain reliability
- raw materials purity and chemistry of batteries and hydrogen fuel cell
- failure analysis of battery components, including cathode, anode, electrolyte, separators
- failure analysis and reverse engineering of traction battery pack
- catalyst characterization
- purity and grade of gasoline
- semiconductor materials for power invertors
- device failure analysis, component testing, reverse engineering and IP support on power transistors

Navigation, Sensors and Autonomous Driving

- layer structure R&D support for VCSELs
- processed wafer quality analysis
- device design R&D and failure analysis for sensors
- IC and microelectronic component testing
- microprocessor and memory design and testing
- reliability testing across a range of temperatures and operating conditions

Lighting, LED and Display

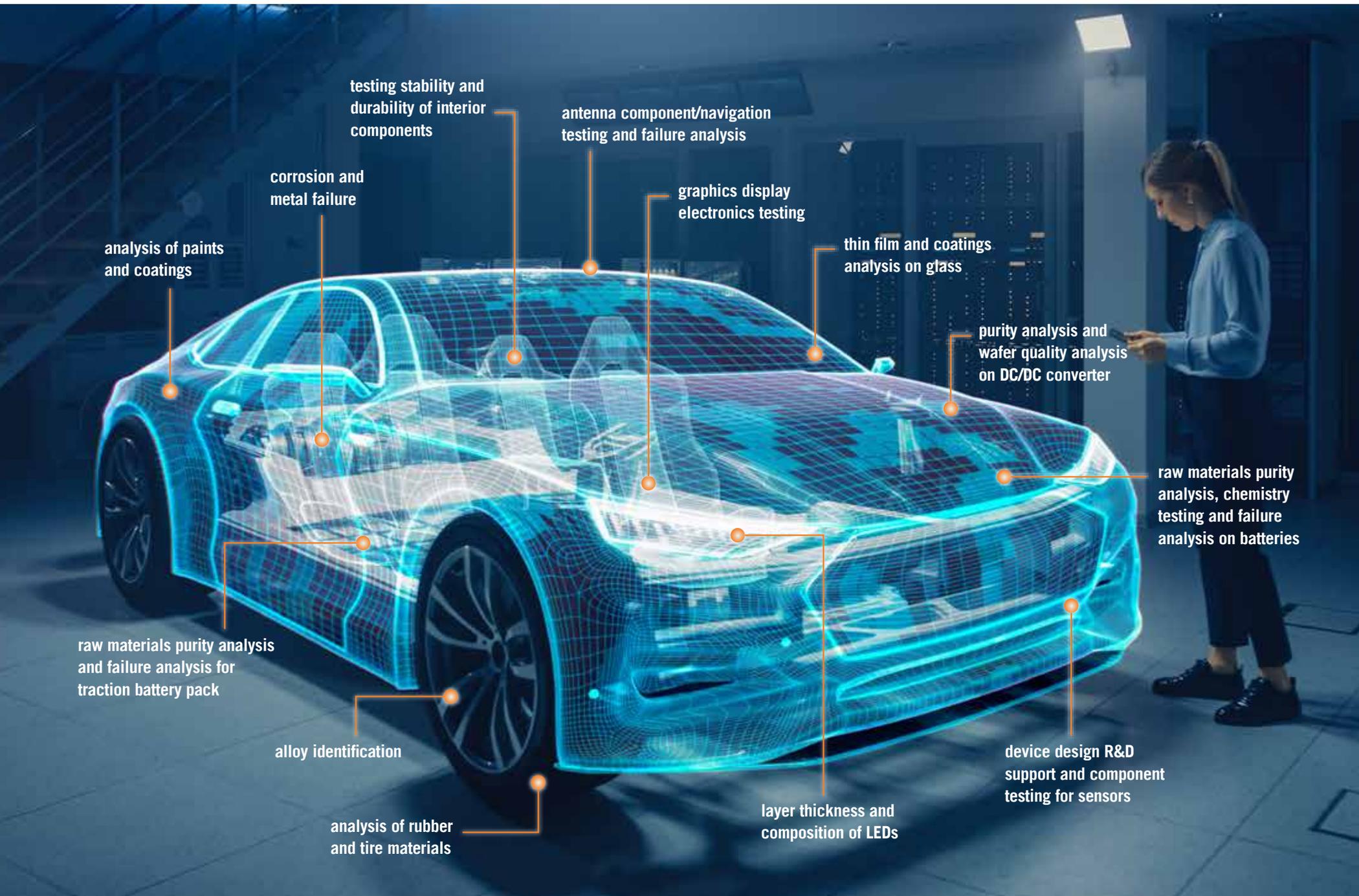
- dopant and impurity of epilayers
- measuring layer thickness and composition of semiconductor devices
- graphics electronic modules testing and FA

Automotive Body Parts

- raw materials purity analysis of metals, glass and polymers
- fatigue and corrosion failures of auto components
- layer structure for metals
- advanced coatings, R&D, failure analysis and reverse engineering on glass
- filler raw materials analysis, R&D and failure analysis on plastics and polymers
- paint analysis investigating layer thickness, composition, identity

Eurofins EAG Laboratories serves the automotive industry in a wide range of areas and applications. We work closely with companies to supplement their analytical instrumentation and act as an overflow lab for outsourcing specific tests or projects.

To support a highly regulated industry, Eurofins EAG is accredited & certified for automotive testing standards.



testing stability and durability of interior components

antenna component/navigation testing and failure analysis

corrosion and metal failure

graphics display electronics testing

analysis of paints and coatings

thin film and coatings analysis on glass

purity analysis and wafer quality analysis on DC/DC converter

raw materials purity analysis, chemistry testing and failure analysis on batteries

raw materials purity analysis and failure analysis for traction battery pack

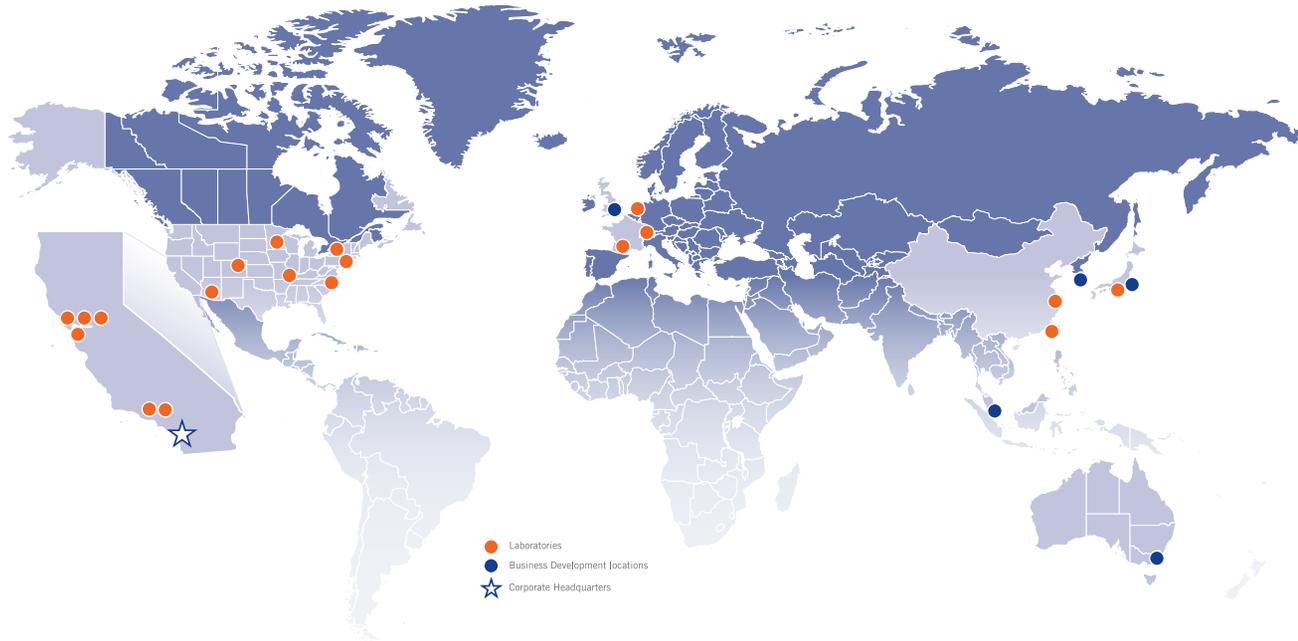
alloy identification

device design R&D support and component testing for sensors

analysis of rubber and tire materials

layer thickness and composition of LEDs

	Advanced Microscopy	Bulk Material Analysis	Chemical Analysis	Failure Analysis	Materials Characterization	Microelectronics Testing	Reliability Qualification	Surface Analysis
Powertrain and Drivetrain								
Analysis of trace elements in metals and alloys		✓						
Alloy identification		✓			✓			
Raw materials purity and chemistry of batteries	✓	✓	✓		✓			
Catalyst characterization	✓				✓			
Device FA, component testing, reverse engineering, IP support on power transistors	✓			✓	✓	✓	✓	
Analysis of fuel cell components		✓			✓			
Investigation of lubricants, fuel and fuel additives			✓		✓			
Navigation, Sensors and Autonomous Driving								
VCSEL based sensor analysis	✓				✓			
Processed wafer quality analysis	✓				✓			
Device R&D, FA and component testing				✓		✓	✓	
Microprocessor and memory design testing	✓			✓	✓	✓	✓	
IC and microelectronic component testing				✓		✓	✓	
Microwave communication/antenna component testing	✓			✓	✓	✓	✓	✓
Lighting, LED and Display								
Dopants and impurities	✓				✓			
Layer thickness and composition	✓		✓		✓			✓
Graphics electronic modules testing and FA	✓			✓	✓	✓	✓	✓
Automotive Body Parts								
Analysis of glass and advanced coatings	✓	✓		✓	✓		✓	✓
Analysis of paints and coatings			✓					✓
Analysis of plastics and polymers		✓	✓	✓	✓		✓	✓
Analysis of rubber and tire materials			✓	✓	✓			✓
Fatigue and corrosion failures of auto components	✓	✓		✓	✓			✓
Layer structure	✓				✓			✓



About Eurofins EAG Laboratories

Eurofins EAG Laboratories has over 40 years experience in materials and engineering testing services. We support over 4,000 clients using 2,500 pieces of equipment in 20+ facilities located in the US, Europe and Asia.

When it comes to understanding the physical structure, chemical properties and performance of advanced materials and integrated circuitry, no other scientific services company offers the breadth of experience, diversity of analytical techniques or technical ingenuity of Eurofins EAG Laboratories. 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 speed 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.

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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**