Your challenges
Industries such as automotive, electronics, lighting, medical and consumer products all benefit from the expertise and added value of TÜV SÜD materials testing and analysis. Manufacturers can rely on our ISO 17025 accredited labs and accurate test results. Materials testing and analysis techniques provide a solid and repeatable process for improvement to truly understand the nature and properties of materials that will impact performance or failure.

What is materials analysis?
Materials testing and analysis serves to evaluate quality and usability, providing a better understanding of how to enhance performance or negate a potential failure. Innovation in engineering and manufacturing is promoted through materials analysis of a broad range of materials such as metals, polymers, composites and ceramics. Understanding the properties of a material is crucial in identifying the correct materials for a particular use and to ensure your product meets the expected specifications.

Why is materials analysis important to your business?
Determining the cause of a failure or improving a design, a materials analysis laboratory provides the data necessary to make smart decisions in product design. Failures result in revenue loss and just as important a tarnished reputation. Increasing performance adds value and pushes a company past the competition. Given the current state of technology and advanced manufacturing methods, investing in proper material analysis techniques will pay for itself.

How can we help?
TÜV SÜD operates full service testing labs capable of addressing materials testing and analysis using ASTM, SAE, IEC and MIL standards as well as OEM-specific or custom performance evaluations. Materials analysis can be performed post environmental testing, including both destructive and non-destructive analysis such as tensile testing, Micro/Macro surface analysis and corrosion. Our state-of-the-art testing equipment, combined with our
experienced engineers and analysts, can meet the most demanding testing requirements within the limits of your schedule and budget. Our services include:

- Solder joint cross-sectional analysis
- Crimp height cross-sectional analysis per USCAR specifications
- Erosion/Corrosion Pit Depth analysis
- Coating Thickness
- Tensile Test (ASTM E8)

**Your business benefits**

- **Minimize risk**
  by working with TÜV SÜD to avert hazards and defects that could result in expensive recalls and reputation damage.
- **Save time and money**
  with our expert advice you can take corrective actions and improvements early in the product lifecycle, thus avoiding costly and time-consuming rework.
- **Gain a competitive edge**
  with the globally recognized TÜV SÜD brand, trusted worldwide.
- **Access complete solutions**
  by working with a partner to make sense of complicated techniques and provide valuable insight for improvement.

**Why choose TÜV SÜD?**

We have extensive experience in providing testing and expert advisory for many different product industries around the world. Our standing as an independent and impartial third-party assessor instills confidence that our test results are appreciated in high regard.

**Choose certainty. Add value.**

TÜV SÜD is a premium quality, safety, and sustainability solutions provider that specializes in testing, inspection, auditing, certification, training, and knowledge services. Represented in over 800 locations worldwide, we hold accreditations in Europe, the Americas, the Middle East, and Asia. By delivering objective solutions to our customers, we add tangible value to businesses, consumers, and the environment.

**Related services**

- Thermal and chemical analysis
- Environmental testing
- Mechanical and durability testing
- Electrical safety of end product
- HALT/HAST