Our abuse testing services
TÜV SÜD is a leading global expert in testing battery cells, modules and packs. Our abuse testing services help customers to design and manufacture products that meet the highest levels of safety and quality, in line with industry and regulatory requirements. With our advanced, fully equipped facilities, we are able to simulate extreme environmental conditions and scenarios to test your battery beyond its limits. Our range of safety tests includes but is not limited to:
- Nail penetration
- Overcharge / over discharge
- Short circuit
- Thermal stability
- Cycling without active cooling
- Crush / crash
- Drop
- Fire
- Salt and freshwater immersion
- Gas analysis
- Thermal propagation
- BMS/Protection validation

Our services are applicable to an extensive range of applications such as electric vehicles, stationary batteries, rail and marine applications, 2-wheel vehicles, grid storage, grid balancing, backup applications, uninterruptable power supplies (UPS), e-bikes, off-road and aerospace.
Your business benefits

- **Stay ahead of developments** – with global experts who are at the forefront of the electrical energy storage industry and can help you meet customer and regulatory safety requirements.

- **Benefit from a single-source provider** – for testing and certification that extends through the entire value chain, from component to final product.

- **Gain customer confidence** – by leveraging TÜV SÜD’s reputation as the preferred third-party testing partner.

- **Save time and money** – with reliable tests that reduce warranty claims, time to market and R&D activities.

**Why choose TÜV SÜD?**

TÜV SÜD is the trusted battery testing expert. Our holistic approach and commitment to safety will optimise the reliability of battery and other energy storage products. Through our expanding network of laboratories throughout North America, Germany, China, Korea, Japan and Singapore, we are ready to serve the needs of customers. This global testing network provides the full range of testing services and validation planning.

We are a neutral and independent third-party technical service provider, with a focus on delivering value to stakeholders. TÜV SÜD has a global network of experts you can rely on for international market access and in-country experience. Our interdisciplinary expertise will streamline your product development.

**Choose certainty. Add value.**

TÜV SÜD is a premium quality, safety and sustainability solutions provider that specialises in testing, inspection, auditing, certification, training and knowledge services. Represented in over 1,000 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**

TÜV SÜD provides the following related services:

- Lifecycle testing
- Performance testing
- Drive cycle simulation
- Environmental and durability testing
- Transport testing according to UN 38.3
- High voltage and electrical safety training
- Homologation services
- Charging infrastructure services