

SLG Prüf- und Zertifizierungs GmbH

Testing of batteries and cells

We test charger, battery pack and consumer as one unit.



About us

We are an independent test institute with long-term experience in testing and certification of products and systems. We provide comprehensive services from standard research to tailored test plans, testing and certification.

Our services:

- > Electrical, mechanical and functional safety
- > EMC Electromagnetic compatibility
- > Fitness for use
- > Energy efficiency and ecodesign
- > Environmental and life cycle simulation
- > Technical acoustics and noise
- > Chemical analytics
- > Radiation physics and radiation protection
- > Thermography
- > National and international certification
- > Inspections for quality assurance

Additionally:

- > Design and construction of test equipment
- > Calibration
- > Certification of QM/QA systems
- Courses for expertise in radiation protection by SLG Akademie GmbH

Contact

SLG Prüf- und Zertifizierungs GmbH Burgstädter Straße 20 09232 Hartmannsdorf

Do you have any questions?

 Phone:
 +49 3722 7323-866

 Fax:
 +49 3722 7323-140

 Email:
 batteries@slg.de.com

Please visit our website at **www.slg.de.com** for more information on our services.







Safety

SLG is accredited by the national German accreditation body DAkkS and internationally by the IECEE (CB scheme) for battery testing (BATT). Within this framework we perform safety tests according to IEC 62133:

- > Continuous low-rate charging
- > Moulded case stress at high ambient temperature
- > Temperature cycling
- > Incorrect installation of a cell
- > Forced discharge
- > Overcharging
- > External short circuit
- > Mechanical shock
- > Cell protection against a high charging rate
- > Thermal abuse
- > Crushing of cells
- > Low pressure
- > Free fall
- > Vibration



UN transportation testing

During shipping lithium batteries are exposed to a multitude of climatic and mechanical stresses. In order to guarantee safety, each lithium battery that is transported must comply with the requirements of the UN Recommendations on the Transport of Dangerous Goods, subsection 38.3. We conduct the relevant tests to prove the compliance of your lithium batteries.

The following scenarios are simulated:

- > Altitude simulation: simulates air transport under lowpressure conditions (15 000 m altitude)
- > Thermal cycles test: simulates take-off and landing during air transport
- > Vibration: simulates vibration during transport
- > Shock: simulates falling from a great height
- > External short circuit: simulates an external short circuit
- > Impact: simulates an impact
- > Overcharge: simulates an overcharge condition
- > Forced discharge: simulates a forced discharge condition

Fitness for use

Does the battery or cell comply with the information given by the manufacturer? To check this we test the fitness for use and durability of your battery.

The following tests can be performed:

- > Charging methods at different temperatures and currents
- Discharging methods at different temperatures and currents
- > Determination of capacity under different environmental conditions and after different time intervals
- > Capacity tests under simulated application cases
- > Cycle stability, durability
- > Integration of charger and battery
- > Handling and performance characteristics

Just present us your product. We will gladly submit you a quotation free of charge and without obligation.