



# BATTERIES

WITH CALCIUM TECHNOLOGY

## GENUINE MINI PARTS

- ▶ **Maintenance-free**
- ▶ **Long utilisability**
- ▶ **High power output**
- ▶ **Long operating life**
- ▶ **Great robustness against corrosion and internal shorts**
- ▶ **Stable at low and high temperatures**
- ▶ **Optimal safety against leakage of acid and deflagration (burning or detonation of explosive gases)**
- ▶ **Optimal recyclability**

### FUNCTION IN DETAIL

The battery is the "stationary" counterpiece to the alternator: Even when the engine is not running, the vehicle's electrical system is supplied with voltage because the battery stores the electrical energy created by the alternator during the drive and delivers this where needed to the consumers like the starter, ignition, lighting etc.

- The battery itself is made from a plastic housing; which is divided in the interior into multiple cells each with a rated voltage of 2 volts. 6 cells are required for a 12 volt battery.
- Every cell contains a positive and negative set of plates, which are isolated from each other by transfer plates – the separators.
- The batteries are filled with diluted sulfuric acid through which the current draw flows from the minus to the plus electrode.
- The capability of the battery to store energy is referred to as its capacity. This conforms to the number and size of the plates and is specified in ampere hours (Ah). For example, a 46 Ah battery can be discharged for 20 hours long with 2.3 amperes.
- The derived capacity is less for:
  - high discharge voltages,
  - high or low temperatures,
  - increasing battery age,
  - damage to the battery.



