Engine.

Product	The advantages for your customers	The advantages for you	Practical hint
V-belt and belt drive system. Exceptionally low noise and avoidance of squealing. 	• Long service life thanks to low mechanical wear. • Reduces the risk of consequential damage.	• Precisely adapted to auxiliaries such as alternator, water pump and air conditioning compressor.	• The Mercedes-Benz genuine poly-V-belt has a service life of at least 90,000 km (on regular conditions), enough to take a Mercedes-Benz around the world more than twice.
Starter battery. Fully maintenance-free high-performance product with a long service life. 	**Advantages of AGM technology:** • 3 times longer service life thanks to high cycle strength and chemical stability. • Exceptionally good cold-start properties. • High performance and therefore perfect for highly equipped cars. • High resistance to exhaustive discharge. • Lower self-discharging. • 100 % tilt- and leak-proof. **Advantages of lead-calcium-silver technology:** • 20 % higher service life compared to conventional batteries. • Greater stability when subjected to frequent short trips and enhanced cold-start capabilities.	• The Mercedes-Benz genuine starter battery gives your customer a high-quality product that is ideally adapted to the vehicle's energy requirements and can be stored for longer than conventional IAM batteries.	• AGM stands for Absorbent Glass Mat. In this battery, a glass fibre fleece is saturated with sulphuric acid. Compared to conventional car batteries, there is no fluid which could leak out in the event of an accident, for example. • The AGM batteries are ideal for highly equipped cars or vehicles and a start/stop function.

Products bearing this symbol were subject to a competitive comparison. A selection of the test results can be found on the following pages.

Product	The advantages for your customers	The advantages for you
Spark plugs. Ideally tuned to the engine – for higher output, lower fuel consumption and a long engine service life. 	• High-quality component structure thanks to the use of extremely resistant and durable materials. • Effective, environmentally friendly combustion.	• Specifically developed and tested for each Mercedes-Benz engine type.
Glow plugs. Help ensure a fast engine start and an effective, environmentally compatible warm-up phase. 	• Mercedes-Benz glow plugs reduce the risk of sooting as the ideal operating temperature is reached quickly.	• Specifically developed and tested for each Mercedes-Benz engine type.
Silencers. Extremely high level of sound attenuation without impairing the engine output. 	• Long service life and therefore highly economical. • Specifically developed and tuned for Mercedes-Benz vehicles. • Complex and stable structure thanks to high-quality V2A stainless steel.	• Mercedes-Benz genuine silencers are an ideal fit for our Mercedes-Benz models and therefore ensure short repair times.

Competitive comparison: starter battery (AGM technology).

Original vs. competitor.

Vehicles these days are being fitted with more and more electrical and power-intensive consumers such as assistance systems and entertainment products. While these enhance comfort and convenience, they also add to the demands placed on the battery. The independent, DEKRA-approved testing laboratory Prüflabor Batterieingenieure GmbH from Aachen was contracted by Mercedes-Benz Group AG to test the Mercedes-Benz genuine starter battery (A 001 982 82 08) against five comparable competitor products from Germany and the USA.
The conclusion: the Mercedes-Benz genuine starter battery impressed in all tests.

A summary of the results can be found here:

PRE-TESTS

- Capacity test 1 (as delivered)
- Cold-crank test 1
- Capacity test 2
- Cold-crank test 2
- Capacity test 3/reserve capacity test
- Cold-crank test 3

SERVICE LIFE

- Cycle test with 50 % depth of discharge
- Cycle test with 17.5 % depth of discharge

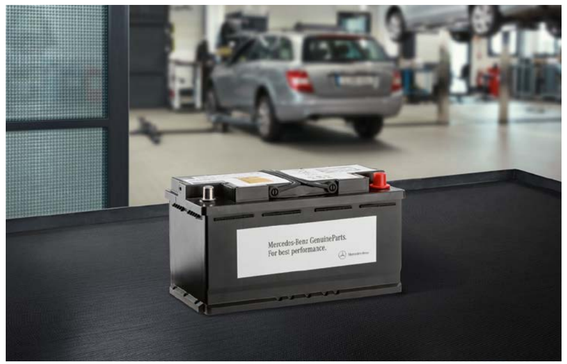
PERFORMANCE/POWER

- Charge acceptance test 1
- Charge acceptance test 2

Preliminary tests. The preliminary tests were used to establish whether the actual battery data measured matched the figures quoted by the manufacturer (capacity and electrical current). The Mercedes-Benz genuine starter battery had a better current capacity as delivered than the majority of the third-party batteries and thus, generally speaking, a greater starting capacity. Even over time (after 10 and 30 seconds of testing), it still demonstrated a good current capacity as delivered. The battery has sufficient power to start the engine. In terms of the reserve capacity measurement, the Mercedes-Benz genuine starter battery exceeds the intended discharge time by around 25 %.

Cycle test with 50 % depth of discharge. After a deep discharge over several days and recharging to 50 % of the charge state, this tough test then subjects the battery to 360 recharging cycles. This tests how often the battery can be discharged to a level of 50 % and recharged. Only two of the tested batteries were able to pass this test – among them, the Mercedes-Benz genuine starter battery. In the comparison, it demonstrated the lowest charge factor and thus the lowest loss during charging. In the subsequent cold-crank test at -18° C, its high voltage of more than 9 V was particularly impressive. With this, it can easily handle a cold-crank. The Mercedes-Benz genuine battery has a high charge throughput. It is robust and able to withstand numerous cycles. It demonstrates a high service life which fully corresponds to the company-internal requirements at Mercedes-Benz; its service life is also longer than some of the tested competitor products.

Cycle test with 17.5 % depth of discharge. This test reflects realistic conditions. Over an 18-week period, the batteries are subjected to 1530 charging and discharging cycles with a depth of discharge of 17.5 %. Here, the Mercedes-Benz genuine starter battery showed the lowest weight/acid loss of all batteries tested. Together with one of the competitor products, the Mercedes-Benz genuine starter battery demonstrated the lowest charge factor – it is among the batteries which require the lowest energy for charging. Even after this test, the battery was able to be used for a problem-free cold-crank, whilst also impressing with its cycle strength and long service life.



Charge acceptance tests 1 and 2. These tests check how fast the battery can absorb the required current after being subject to a deep discharge and various discharge conditions. The faster the charging process, the higher the charge acceptance during the recuperation phase. The tests demonstrated that the Mercedes-Benz genuine starter battery can quickly and efficiently continue to absorb the current. Energy which has been removed, e.g. when stopped at traffic lights, can very quickly be taken back on-board, which thus supports the functionality of the stop/start function of modern Mercedes-Benz vehicles. As a result, fuel can be saved here.*

* In the case of vehicles with short-distance drivers, up to 40–140 euros per year and in the case of vehicles which cover long-distance drivers, as many as 80–280 euros per year. Calculated as follows: short-distance drivers – 15,000 km/year, long-distance drivers – 30,000 km/year; average price of petrol – 1.35 euros/litre; fuel saving of 0.2 l/100 km with start/stop function for a 4-cylinder petrol engine with manual transmission; fuel saving of 0.7 l/100 km with start/stop function for a 6-cylinder petrol engine with automatic transmission according to NEDC with 20 % standstill.

Advantages of the Mercedes-Benz genuine starter batteries:

- Makes ample power available to the vehicle and is a reliable source of power even at low temperatures
- Higher cycle strength and service life due to advanced technology
- Ideally suited for both short and long-distance journeys
- Optimum acceptance of charge and thus lower fuel consumption for vehicles with start/stop function and regenerative braking*.
- Outstanding performance for powerful engines and vehicles equipped to a high specification
- Ideally suited to the energy requirements of the specific vehicle